PROCEEDINGS

OF THE

SECOND ANNUAL CONVENTION

OF

THE COLLEGE ASSOCIATION

OF THE

MIDDLE STATES AND MARYLAND,

Held at Princeton College, N. J.,
Nov. 28th and 29th, 1890.

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PRINCETON, N. J., November 28, 1890.

THE Second Annual Convention of the College Association of the Middle States and Maryland assembled this day in Murray Hall, at 11 o'clock A.M., and was called to order by the President, Charles Kendall Adams, of Cornell University. At some time during the sessions of the Association the following colleges were reported as represented by the delegates named (the list is somewhat incomplete because of failure of many who were present to register):

COLUMBIA COLLEGE.—President Seth Low, Prof. Nicholas Murray Butler, Prof. Thomas R. Price.

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ST. FRANCIS XAVIER'S COLLEGE.—Prof. Thomas Hughes.
GEORGETOWN COLLEGE.—Prof. Edward Connolly.
CATHOLIC UNIVERSITY.—Rector John J. Keane, Prof. O. Gorman.
UNIVERSITY OF THE CITY OF NEW YORK.—Vice-Chancellor Henry M. MacCracken, Prof. Francis H. Stoddard.
LEBANON VALLEY COLLEGE.—President E. B. Bierman.
UNIVERSITY OF PENNSYLVANIA.—Provost William Pepper, Prof. Simon L. Patten, Dean Horace Jayne, Prof. E. J. James, Dr. R. P. Falkner, John L. Stewart, L. Witmer.
DELAWARE COLLEGE.—President A. L. Raub.
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LAFAYETTE COLLEGE.—Prof. F. A. March.
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HOWARD UNIVERSITY.—President Rankin.
COLGATE UNIVERSITY.—Dean W. L. Andrews.
UNIVERSITY OF THE STATE OF NEW YORK.—Secretary Melvil Dewey.

In the absence of the Secretary, Professor Nicholas Murray Butler, of Columbia College, was chosen Secretary *pro tem.*

President Adams, of Cornell University, then delivered the annual address, on

THE CO-ORDINATION OF COLLEGES AND UNIVERSITIES.

It is, perhaps, a hopeful sign that there is a general condition of discontent with that state of chaos which is sometimes dignified by being called our system of higher education. System is a convenient word; but we can hardly claim that in this connection it is used with any very exact significance. Our colleges find it almost, if not quite, necessary to unite the legitimate work of universities with the legitimate work of secondary education; our universities are everywhere doing not a little of the work of colleges; and colleges and universities alike are doing much of the work that should be done, and indeed is done, in the high-schools and academies. This reciprocity of poaching each upon the preserves of the others is none the less real because it is done, as a rule, with mutual consent and with complaisance. We have all, perhaps, been a little overwilling to see the mote in our brother's eye, and a little underwilling, so to speak, to behold the beam in our own eye; but when we consider the magnitude and importance of the subject involved, it must be admitted that the discussions have been carried on without any very discreditable ill-nature. We have all had a genuine, though perhaps a some-

what too gentle, desire that something should be done. We have at least all been willing that somebody else should mend his ways—in other words, in one way or another should get himself reformed.

But of late what may be called certain centres of educational motion have given signs of unwonted activity. This educational chaos is showing something like self-consciousness. At present, it is without form, though perhaps not altogether void; but there seem to be brooding over it spirits that suggest at least the possibilities of new life and new organization.

Let us, for a moment, take a survey of the general field for the purpose of making sure of our bearings, and ascertaining, with such accuracy as we can, the direction in which the higher education is drifting. The custom in some of the great associations of having presented annually by the president a survey of the field during the year before, seems to me worthy of commendation; and I have therefore thought that at this time it might not be out of place to devote the brief hour allotted to me to an examination of the present tendencies of higher education. Whether or not it be true, as has sometimes been said, that tendencies are stronger than men, it is certain that tendencies may be modified by intelligent human action. It will be my effort to examine certain of these tendencies, and to suggest, I hope without any unpardonable spirit of assurance or dogmatism, what seems to be their signification in the movement to which I have referred.

In this new interest what problems are really involved? The question is not a difficult one; for whatever lateral branches may seem to be joined to the subject, the main root and trunk of the matter are clearly defined and plainly in view. That this is the fact a little survey of the situation will perhaps afford sufficient evidence.

Of the institutions empowered to confer degrees, four hundred in number, more or less, not more than a score certainly, probably not more than half a score, are as yet raised so far above the others as to be unquestionably entitled to an exceptional designation. Even this small number, let us call it ten, more or less, still feel themselves obliged to do, during much of the time, at least, essentially the same grade of work that is done by the other three hundred and ninety. For, however superior we may fancy some of the instruction, it is nevertheless true that there is a prime necessity for the same class-room drill in the elements of language, the same elementary instruction in several of the natural sciences, the same general preponderance of elementary or secondary work. This must necessarily be the fact, so long as the ten and the three hundred and ninety receive their pupils from the same schools or the same class of schools. The fact, I suppose, is admitted by everybody, and by everybody is regretted.

Of the efforts made within the past few years to resolve this chaos, or, at least, to mitigate its evils, a few are worthy of a moment's examination.

The one that comes first into mind is the plan that was adopted at Johns Hopkins University. Here two distinct efforts were put forth: the one, consisting of the organization of graduate work on a basis of a completed college education; the other, of a modified system of undergraduate studies, leading to the baccalaureate degree. By this organization the work

of instruction became partly the work of a true university and partly the work of a true college. The collegiate work was found to be a matter of convenience, both for the satisfying of the local demand, and for the preparing of a body of students for the higher work of the university. Of the nature and character of the university work itself it is not necessary here to speak. Of the nature of the collegiate work something is to be said; for in its methods it differed radically from anything that had gone before; though in some of its less important characteristics it was analogous to the various methods that had already been adopted at the University of Michigan and elsewhere. The distinguishing feature of the plan of organization was the effort it made, not so much to give elementary instruction in a large number of studies, thus fitting the pupil to advance into the higher realms of work in any one of a large number of subjects, as to concentrate the attention of the student upon a single subject and its cognate studies, with a view to preparing him for very closely specialized work at a later period in the university. The system of grouping that was adopted in the collegiate department at Johns Hopkins undoubtedly gives a very excellent special preparation for the university work; but obviously it is accompanied with this disadvantage, that it gives a very different kind of preparation from that furnished by a majority of the colleges of the country. The student of the college at Johns Hopkins, on going to the university after three years of specialized preparation, must find himself very much further advanced in the work of his specialty than are the majority of his fellow-students who have taken four years of preparatory work of a general or non-specialized character. It is not my purpose here to discuss the large question as to whether specialization should be given in the college; but it may at least be assumed as desirable that in all efforts we should work toward a system that may ultimately be practicable in all the schools. No friend of higher education can fail to rejoice at the evidences of success furnished from time to time by the Johns Hopkins University; but the real significance of this educational experiment is ultimately to be determined, not simply by what it accomplishes in its own way, but also by the question as to whether it provides a plan which can be successfully imitated or followed by other institutions. It cannot ultimately be regarded as having been in the highest sense successful, if it is left to an exclusive monopoly of its discovery.

While this interesting experiment has been going on at one of the youngest of our universities, an experiment of a very different nature has been going on at the oldest. The system of elections begun during the administration of President Hill, and brought into full development during the administration of President Eliot, may be looked at from many points of view; but for the purpose of this discussion it has only one peculiarity that need receive our attention. In the development of graduate work, and the emphasis given to it at Harvard by the recent establishment of what is called a Graduate School, it would seem that the purpose has been to regard the undergraduate courses as collegiate or secondary in their character. This would seem to be a specific abandonment of the ground taken at the time when the elective system was adopted. The logical justification of that im-

portant step was the supposition that the preparatory school was doing the secondary work in acceptable amount and that in consequence the student at the time of entering college is ready to profit by the freedom of university methods. If the collegiate course is to have the nature of university work, it is not easy to see why it need be followed by separate and distinct graduate courses. If on the other hand it is to be regarded as collegiate work, it would seem that it ought to follow what are generally regarded as correct collegiate methods. While on the one hand, according to all our standards, there should be in the university a large measure of freedom, on the other, in the collegiate or secondary institution, the pupil ought to be held with considerable firmness to a prescribed disciplinary course. If, in view of this anomaly, one is led to ask whether the undergraduate course at Harvard is to be regarded as university work or as collegiate work, of course the answer is that it is neither the one nor the other, in any exact sense of the term. Three steps have been taken: first, the increasing of the requirements for admission with a view of advancing the collegiate work to a university grade; secondly, the organizing of this advanced collegiate work in accordance with accepted university methods; and thirdly, the superimposing upon the advanced collegiate work a university organization composed exclusively of graduate students. And this brings us to the same question that was asked in regard to the work at Johns Hopkins; namely, as to whether the Harvard method furnishes a model that can be successfully followed by the other universities of the country.

Still a different solution of the question has been attempted at Columbia College. By the action taken some years ago in establishing the School of History and Political Science, a beginning was made in a system which was further developed by the organization of the School of Philosophy last year. The essential characteristic of that system was a recognition of the end of the junior year, as the point where the collegiate system should end and the advanced system should begin. I use the word "advanced" system in distinction from university system, for the reason that, so far as I am able to judge, the methods of instruction after the student passes into the fourth year of the collegiate course are not essentially different from those of the previous course. In other words, they are not those commonly adopted for university students. It seems for some reason not to have been thought wise to give to students in the School of Political Science or in the School of Philosophy that freedom of method which has commonly been thought a condition of the most successful advanced work.

We have here, then, a tendency the very opposite of that which prevails at Harvard. While at the older institution the tendency has been to carry university freedom down into all parts of the collegiate grade, at the younger the tendency has been to carry collegiate strictness up into the work of university grade.

Besides this general characteristic there is another that is worthy of notice. The student is not only relinquished from the jurisdiction of the General Faculty at the end of the junior year, but he is also permitted, while pursuing studies designed to lead up to the doctorate, to carry on professional studies

and receive credit for the same toward graduation. Thus it appears that the Columbia student of Political Science, while carrying on studies leading to the degree of Doctor of Philosophy, may also carry on studies in the School of Law leading to the degree of Bachelor of Laws. In theory, at least, there appears to be no reason why in Columbia College the two degrees of Ph.D. and LL.B. cannot be taken in two years after the baccalaureate degree is received. I here intend no criticism, even by implication, of this system as such, but simply to point out its peculiarities for purposes of comparison with the other systems to which I have already adverted. Aside from the question as to how far it is advisable to encourage higher studies in History and Political Science by offering a higher degree while students are carrying on professional studies, there is the larger question as to whether professional studies themselves are not necessarily so absorbing as to exact, for the highest success, the entire time and attention of the student. It is the answer to this question which must ultimately, in my judgment, set the seal of approval or disapproval upon the Columbia method. There are undoubtedly a considerable number of students to whom these considerations would not apply. Those who are taking the advanced course with a view to a professional career in the teaching of History and Political Science would, of course, not be directly affected by the relations of the school to the School of Law. But here again the question is raised as to whether the existence of these two categories of students in the same school and the same classes can prove an advantage to either of them.

We have thus far seen that at Johns Hopkins, Harvard, and Columbia three different methods have been attempted to solve the educational problem presented. Neither of these plans has up to the present time been followed by any considerable number of imitators. At the other colleges and universities, although we meet with great variety in the adjustment of details, we have one general plan of superimposing university work upon the completed college course. At Yale, Princeton, Amherst, Cornell, Michigan, in fact nearly everywhere, advanced work does not assume very definite form until after the student has received the baccalaureate degree. In very many of the colleges what are called graduate courses are offered; but for the most part they are not open to undergraduates, however advanced.

In this system, if it may be called a system, there is one obvious anomaly. In nearly or quite all our colleges at the present day, elective work occupies no small part of the time during the senior year; in many of them even during the junior year. It follows that the student by the mere fact of having taken a baccalaureate degree is not necessarily well prepared to enter upon advanced work in any given subject. A class of graduate students going from a considerable number of American colleges will be found to have as a whole a very heterogeneous and inadequate preparation for advanced work. If a dozen students, let us say, coming from as many different colleges, arrive at Harvard or Cornell for graduate study in history, it will be found that some of them have had no history beyond the elementary course taught in the majority of our colleges, while others have had that special preparation which qualifies them for going on at once with advanced work. On inquiry it will

be found that few, if any, of those presenting themselves from other colleges are as well equipped as the senior who began to specialize at the beginning of his sophomore year. Graduates going from the small colleges to Johns Hopkins, Harvard or Cornell will generally be found not better prepared for advanced work than the seniors or perhaps even the juniors of the universities receiving them. The result is that by anything like an inflexible classification into graduate and non-graduate work great injustice is liable to be done. The foreign graduate is put to advanced work before he has laid the proper preliminary foundation, or he is put back into undergraduate classes; or, thirdly, we must have graduate classes doing a kind of work that is more elementary than that performed by the most advanced classes of undergraduates. And this anomalous state of affairs seems likely to continue so long as the dividing line between the college and the university is theoretically at one point, while practically it is at another. Harvard College, even after introducing university methods at the beginning of the undergraduate course, feels obliged still to have a dividing line between graduate and undergraduate students.

Besides the practical efforts that have been made in the several institutions already named, one method has recently been suggested as a means of separating the universities from the colleges. In the October number for 1890 of the *North American Review*, it has been proposed that the four hundred and seventy-five colleges, more or less, place themselves in a subordinate position of secondary schools, and that the remaining twenty-five larger institutions assume the position of universities for the purpose of doing strictly university work. However desirable such a classification may be, the practical difficulties in the way of bringing it about by any voluntary means are, it seems to me, absolutely insurmountable. It is difficult to see how any authority can determine which institutions shall take the rank of universities, and which the rank of colleges. It is equally difficult to conceive of a willingness on the part of smaller institutions to take a lower rank of their own voluntary will. There would be candidates enough for universities, but where would be the candidates for colleges? This classification, if ever it can be brought about, must be accomplished through the settled force of influences that will cause the various institutions of the country to gravitate, so to speak, by an irresistible force into the positions to which they are naturally adapted. Is there any way by which such a force may be set to work?

It would be rank presumption to dogmatize on a question that has taxed the mental resources of so many men of educational ability; but I hope that I shall not be deemed guilty of unpardonable presumption in suggesting a method of solution.

It has already been intimated that the dividing line between the college and the university seems naturally to fall at the period when required work ends and the elective work begins. It will be universally admitted, I suppose, that the distinguishing feature of the ideal college is a somewhat rigid adherence to certain fixed courses of study, while that of an ideal university is a large freedom, not only in selecting the courses of study, but also in the methods of pursuing such courses. The one has the twofold end in view of

developing the mind, and of affording that elementary knowledge which is a requisite preliminary to the successful prosecution of advanced work. The purpose of the other is to apply the mental discipline that has been acquired to such advanced work as will best fit the student for the practical affairs of life.

However tenaciously and illogically we may have insisted upon keeping up a difference between undergraduate and graduate studies, that is to say, keeping up a barrier more or less artificial at the point of graduation, there has been an irresistible tendency in a very large number of our most prominent colleges and universities to make the real dividing line at the beginning of the junior year. While it cannot be claimed that there is uniformity of method or unanimity of opinion in regard to the introduction of elective work at this point in the college curriculum, that there has been a movement in that direction can, I think, hardly be disputed.

In favor of this dividing line, moreover, there is much to be said. It will probably be admitted that at the end of the sophomore year our students are generally in a condition to enter upon university work that would not compare unfavorably with the condition of European students at the time of entering the university. Our students know less of Latin and Greek than do the students of Germany; but they know more of the mathematics; they have a larger general information, and probably have a greater adaptability to such work as they may desire to pursue while in the university. Still more favorably would our students at the beginning of the junior year compare with the students of England and France at the time of entering upon their university course. The question suggested by this line of thought is whether it is not practicable to direct our students with the ultimate purpose of giving all the work before the end of the sophomore year to the colleges, and all the work after the sophomore year to the universities.

Of course, such a sharp line of distinction cannot be established by direct legislation, nor by any mandatory legislation of the colleges and universities. It must be done, if at all, simply by force of tendencies. Is there any way in which, if it should seem desirable, such a current of tendencies can be established and encouraged?

Before attempting to answer this question, it may be well to note that the chief advantages that have, from time immemorial, been claimed for the small college, appertain to that part of the work which is done early in the course—in other words, which is strictly collegiate in its nature. There is, and there will forever continue to be, something to be said in favor of any educational organization which, during the early years of the collegiate period, brings the student in small classes into direct and intimate personal contact with teachers of the best ability. On the other hand, as soon as the student has completed what may be called the collegiate branch of his education, he desires, in the university branch, instruction of quite another kind. What he calls for is not simply instruction in language and literature, in history and political science, in the natural sciences, in political economy—either of these, whichever you please—but he wants so much of the particular one he has chosen that it will so far make him a specialist as to create a demand for his

services. If he is to be a lawyer, he wants history and political science, not in a mere smattering, but in such measure and quality as will enable him to understand how the roots of his profession have drawn its life out of the soil from which it has sprung. If he is to be a physician, he wants a knowledge of botany, chemistry, anatomy, physiology, indeed of all the biological sciences. If he is to be a clergyman, he wants not simply the languages in which the Scriptures have been given to us, but the characteristics of the ancient civilizations, and a knowledge of the way in which civilizations have subsequently been developed and modified by religious forces. If he is to be a teacher, he wishes so completely to equip himself in some specialty that his exceptional fitness for some higher work will be recognized and sought. Now it cannot be said too often or with too much emphasis that the furnishing of such opportunities is the legitimate work of the university, and can never be the legitimate work of the college.

But while this is the case, it is equally true that the required work, and all of it, is within the domain of the college and can never legitimately be elsewhere. In one case all the advantages of the smaller college come into play, in the other all the advantages of the university. It is the most elementary and commonplace truism to say, that so long as advanced and special work requires not only a large equipment in the way of apparatus, laboratories, museums and libraries, but also a large and varied teaching force, so long the work of specialization can be carried on only by those institutions which have large means—in other words, by the universities. On the other hand, so long as the elementary work requires comparatively little of material equipment in the way of apparatus, laboratories, museums and libraries, the work can be quite as well done by the colleges as by the universities.

Now, if the positions taken are correct, it follows that our young men and women, under an ideal system, would not be in the universities during the first two years, and would not be in the colleges during the last two. We are now prepared to ask whether there is not some way by which the masses of our students can avail themselves of these differing advantages?

It must be granted that an abrupt and immediate bringing about of any such result as that here implied is impossible. Beneficent changes are generally the fruit of tendencies; seldom the fruit of violence. But when we have a rational basis, when we see clearly the end to be attained, when we perceive the method of slowly but surely approaching a benign result, surely it is the part of wisdom to work definitely and persistently to the attainment of that end. How can it best be done?

First, all the unnecessary obstacles that tend to prevent students from going from the college to the university at the end of the sophomore year should be removed. I am persuaded that if half a dozen of our most prominent universities should boldly and with no reserve say that they will receive students without examination who have completed the sophomore year in any reputable college, the action would do more than any other one thing that could be done to bring about the desired result. Such action would at first undoubtedly be attended with some inconvenience. Occasionally a poor

scholar would find his way out of the college into the university; but, if one may judge from history and from analogies, the embarrassments from these efforts would turn out to be less in practice than had been anticipated. No college is desirous of having its pupils discredit its early instruction by subsequent failure; and to prevent such a result, every college would have an inducement to hold its students well up to the proper standard. Admission by certificate has had this result upon the preparatory schools. For more than twenty years the most promising and flourishing of the universities in the Middle West has received students on certificate from approved schools and academies. During a shorter length of time students have been received in a similar manner from approved schools at Cornell. For perfectly natural reasons the average standing of students so admitted is higher than the average standing of those admitted on examination. The result in this country thus far has been the same as the result of a similar movement in Germany. Formerly, as is well known, candidates for admission to the German universities were examined at the university itself; but it was at length thought advisable to throw the responsibility of a proper preparation upon the preparatory or intermediate schools, and one may state with confidence that no other one thing ever did so much to raise the standards of scholarship. The Germans learned from this experience that the way to elevate the standards of attainment is to exert the pressure not at the point of admission, but at the point of graduation. Accordingly, in the intermediate, as well as in the advanced schools, the Germans have now for a long time adopted a liberal policy in the matter of admission. The same is true in England and France; and the policy of so doing is one that I believe to be favored by the highest educational authorities of the time.

It must not be forgotten, of course, that any new system, or any modification of an old system, is likely to be attended at first with certain embarrassments. But, regardless of embarrassments, we must strive for the greatest good. If large numbers could be drawn from the colleges at the end of the sophomore year to the universities, the good results that would accrue to scholarship in general would, in my opinion, far more than counterbalance all the contemporary annoyances or embarrassments.

In the second place, not only should the universities make the terms of admission easy, but they should adapt their work at once to the new conditions. Their third and fourth years should be arranged to afford the specific training called for as preliminary to each of the great professions. There will, perhaps, be differences of opinion as to whether it would be desirable to establish definite schools for the purpose of giving instruction in theology, law, medicine, or pedagogy; but, whether so designated or not, all the courses should be given that are necessary for the most complete training for these several professions. It would probably be found advantageous to group them in such a way that the students of each group could easily see what are offered to them, and easily and naturally select and obtain what they want. The baccalaureate degree, as now, could be given at the end of the fourth year, reserving the higher degrees for professional work. If the co-ordination here outlined should finally become complete, it might be thought best to give the

baccalaureate degree ultimately at the end of a modified collegiate course. For the present the universities would probably find it necessary to continue to do the work of the first and second years substantially as at the present time. This should be carried on, however, with the clear prospect and purpose of ultimately giving up the work entirely to the colleges.

In the third place, as the universities tend more and more to devote their strength to the third and fourth years, so the colleges should tend more and more to concentrate their efforts upon the work of the first two years. The third and fourth years would doubtless for a time be continued for such students as might choose without going elsewhere to complete the course for the baccalaureate degree. But the authorities of such a college would probably soon perceive the impossibility of competing successfully with the universities, and would adapt their measures to the ultimate abandonment of the effort. Meanwhile, the college course could easily be made one of three years, or even four, by pupils entering at an earlier period than at present.

There is another consideration that must not be overlooked. No changes can be regarded as adequate to the requirements of the time that do not take cognizance of the position of our professional schools. To say that our schools of Law and Medicine are far from what they ought to be, is to say what every thoughtful observer knows and deplores. But the prime difficulty in the way of reform is, at present, the fact that in every class there are sitting side by side college graduates and men not fitted even to enter the freshman class of the undergraduate course. From this incongruous mass of students it is impossible to exact a long and comprehensive course of study. The graduate has already been so long at his books that he cannot withhold a much longer time from professional activity; and his ill-prepared classmate is often in haste to force an entrance into a profession at the earliest possible moment. The consequence is that the grade of instruction can be adapted neither to the one class nor the other. In view of these facts it ought not to be regarded as singular that there is not in America to-day a single institution in which a student can obtain what in Europe would be looked upon as a good education either in Law or Medicine.

The method that has been suggested would afford opportunity for a radical and practicable change. The universities, agreeing to accept of students with corresponding rank at the end of the sophomore year, should require the same preparation for admission to their professional schools. It is easy to see that if, say ten of the leading universities of the country were now to issue an edict that on and after 1895 no student will be received in the Schools of Law and Medicine that have not completed the sophomore year in some reputable college, the first step toward a great reform would have been taken.

The second step in this direction should be the announcement of the rule that no student will receive the professional degree in less than four years from the time of admission to the professional course of study. It is not difficult to find indications that the country is ready for a change of this kind. I believe it to be a great mistake to suppose that all, or even a majority, of our students are in precipitate haste to enter upon professional

life. What they desire is a training which, either long or short, will do most to assist them to professional success. That students in medicine, for example, have no aversion to a course of four years is abundantly shown by the prosperity of the Medical School in the University of Michigan. In Detroit, Chicago, Cincinnati, Cleveland and Buffalo are to be found medical schools in which the degree of Doctor of Medicine is granted at the end of two years of from four to eight months each. And yet in the small city of Ann Arbor, which is favored with no such clinical advantages as are afforded in a metropolis, there are, at the present time, nearly four hundred students pursuing the medical course of four years. So it would probably prove elsewhere. This is an age of wealth; and, although there are doubtless not a few aspiring students who would find it difficult or impossible to pursue the longest course, the number of those is still very large who are willing and able to devote whatever of time and money is necessary to increase the chances of ultimate professional success.

The third step that should be taken in this general plan for the benefit of professional education would be the adoption of a uniform custom in the matter of degrees. There are many reasons for thinking it would be wise at the end of the second year of professional study to grant the baccalaureate degree, as in other courses. In nearly or quite all of our universities at the present time the work of the third and fourth years is, for the most part at least, elective. The baccalaureate degree, therefore, is not given as the result of studies of a prescribed and designated character. Professional studies during the same length of time can hardly be regarded as less important. Such a degree, moreover, would have the advantage of putting all university students on the same footing, of giving to all students, after two years of college and two years of university life, a baccalaureate degree, in short, of holding out to all successful work of equivalent grade the same university recognition.

If the measures of reform here outlined were to be adopted and were to result as here anticipated, we should ultimately have something like the following conditions:

1. All college students terminating the work of collegiate grade at the end of the sophomore year.

2. All students at the beginning of the junior year entering upon professional courses; these courses embracing Law, Medicine, Theology, and all of the branches in which students might desire that exceptional training which is necessary to fit them for the profession of teachers.

3. The giving of the baccalaureate degree at the end of the second year of university work.

4. The giving of the professional degree at the end of the fourth year of university work; that degree being either Doctor of Philosophy and Master of Arts, or any professional degree for which the student may be prepared.

Now it is not difficult to anticipate some of the objections to this method of reorganization that will suggest themselves.

In the first place it may be said that between the collegiate course in the college at the present time, and the same course in the university, there is no

such difference as to warrant the raising of the one and the lowering of the other. At first thought this would seem to be true; but a close scrutiny will show that this absence of disparity is simply because both grades of institutions draw pupils from schools of the same class, and, consequently, that the instruction best fitted for the one is best fitted for the other. In other words, it is by the low grade of preparation of its students that the university is prevented from doing the high grade of work for which it was organized and to which it could be easily adapted. At half-a-dozen or more of American universities the material equipment for the higher grade of work is scarcely inferior to that to be found in the more famous universities of Europe. But from sheer necessity under present conditions the corps of instruction is kept at what is for the most part very elementary work. If instruction of this elementary grade were to be taken by the colleges, the universities could then immediately devote themselves to that advanced work which would seem to lie within their legitimate scope.

The second objection is suggested in the unwillingness of the smaller colleges to take what may be regarded as a subordinate position. No doubt any college that sees even a faint hope of lifting itself into the rank of a university will hold to that hope with tenacity, and will strenuously resist any movement that will attract its students away at the end of the sophomore year. But a vast majority of colleges can entertain no such hope. Not only is this true, but it may be said that the only possibility of distinction, or even of adequate recognition, is in a fair and open assumption of the duties of a secondary institution. In that position any one of our smaller colleges could do a kind of work of the most creditable and honorable nature, for which there is great and growing demand. But the work of a university they can never do, however strenuously their efforts may be put forth. The matter of expense is an insurmountable barrier. Our larger universities have incomes varying from three hundred thousand to nine hundred thousand dollars a year. No one will claim that the legitimate work of a university organized into various departments can be done for less. Much more even is greatly needed. How worse than useless is it for an institution with not more than a fourth or perhaps even a tenth of that income to assume the responsibility of trying to do essentially the same grade of work!

A third objection that suggests itself is in what may be called *vis inertiæ* of the American college student. When once he has established himself in favorable relations with his college, he is reluctant to move. At the end of the sophomore year, the student sees new attractions before him. Learned professors of whom he has heard much, but, as yet, perhaps has seen comparatively little, beckon him on. Between him and his classmates there have grown up ties of affection which it would be hard to break or resist. In a word, the college *esprit du corps* has laid hold of him, and, in consequence, the ties that bind him to the college where he has passed so agreeably two years of his life are not likely to be broken, in order to gain what, after all, may seem to him only an uncertain advantage in going to another institution.

That these considerations would at first have some obstructive force can-

not be denied; but it is not difficult to see that under the conditions assumed their force should grow less and less as the advantages to be gained should grow to be more and more obvious. Let us suppose an example to illustrate what would probably occur. Here is a college with a class, let us say, of thirty. It becomes known among the members that at the end of the sophomore year they can go at will to any one of half-a-dozen of the universities. Would not the very fact that they could go lead them to scan the comparative advantages that are offered in the two grades of schools? One of two things would be very likely to take place. Either they would very generally prefer and plan to go to some one of the universities; or, what is more probable, they would divide into groups according to their tastes and friendships, and, as groups, would go to the universities of their choice. As at Exeter, Andover, or, if you please, at Eton and Rugby, boys of kindred tastes are likely to carry their friendly ties with them to Yale or Harvard, to Cambridge or Oxford, so it would ultimately be under the arrangement suggested. And thus the movement would undoubtedly result that, if the barriers to removal were once entirely swept away, a current from the colleges to the universities would be established, and, thereafter, there would be a constant and uninterrupted flow. As soon as this flow were established, moreover, the universities would find their time and energies occupied with the upper classes, and would soon be in condition to commit the lower classes to the colleges, where they now belong. The colleges in turn would then without embarrassment or mortification close their upper classes and, at the same time, receive students a year, or, if thought best, even two years earlier than is done at the present time. When these results had been reached, we should find that we have established not only a number of real universities, but also for the first time in America a grade of secondary schools that would be comparable with the schools of Eton and Rugby in England, with the Lycées in France, and with the Gymnasia and Real Schools in Germany.

A discussion of the paper for fifteen minutes was ordered and participated in by Dr. James McCosh, of Princeton; President Fell, of St. John's College, Annapolis; President Wheeler, of Alleghany College, of Meadville; and Dr. Magill, of Swarthmore College.

President D. C. Gilman, of the Johns Hopkins University, as referee, then presented the following paper on

THE SHORTENING OF THE COLLEGE CURRICULUM.

The question of shortening the college curriculum was brought before the public early in the current year by a proposition that was seriously considered in the oldest, richest, and most widely-developed university in the land. The example of Harvard has great weight in all educational circles, and a proposal like this was sure to open an animated discussion.

The official utterances of President Eliot, and of other authorities in

Harvard, may be found in his annual reports as President since 1885–86.[1] These papers indicate that the discussion is still in the stage of preliminary inquiry, and there is no public sign of an immediate conclusion. It is a curious fact (as I am informed) that no affirmative statement has yet been made in Cambridge, on the side of shortening the course. A negative statement has been made by a committee of the Board of Overseers. President Eliot says (Report for 1888–89): "Wherever the fault and whatever the remedy, it is clear that the degree of Bachelor of Arts is taken in the United States later than in any other country in which the degree is used, and too late for the best interests of the individuals who aspire to it, and of the institutions which confer it." A report presented to the Overseers of Harvard by a committee consisting of H. W. Putnam and Roger Wolcott takes a conservative position. Among noteworthy and easily accessible articles bearing upon the subject may be named an essay on the Use and Limits of Academic Culture, by Prof. N. S. Shaler, of Harvard, in the *Atlantic Monthly* for August, 1890; and an editorial in *The Nation* for August 7, 1890. A paper on Uniform Courses in Colleges, by Prof. H. A. Fischer, of Wheaton College, contains (p. 28) an interesting summary of "the time-requirements" of twenty-nine colleges, including the work of preparation.[2] An article by Principal Bancroft, of Andover, published in *The Independent*, September 4, 1890, is important, though very brief. He claims that it is not so important to shorten the educational period as to make every part fruitful. It is important to bear in mind that it is a diminution of time that is advocated—not a diminution of subjects to be studied. The report of President Capen, of Tufts College, dated September 18, 1890, contains a vigorous protest against the shortening of undergraduate courses. He says it is better to spend three years in a fitting school and four years in the college than four years in the fitting school and three in the college.

No general conclusion can be quickly reached on such a question. It must be settled in each institution according to its own circumstances. It must be tried in the local court before it is submitted to the court of appeals, that is, to the public. It does not follow that if one institution, even the strongest and most influential, decides to shorten its course, others will likewise do so. There is no probability that three or four hundred colleges will advocate or consent to curtailment. A strong conservative resistance will be developed by the love of Americans for that which is characteristic in our college system. Whatever its merits or demerits, it is our own. Our scholars are wonted to it; our preparatory schools are adapted to it; the public revere it. New institutions may begin with new methods; but the older colleges are always bound by the fetters of tradition when a fundamental change is proposed. Nevertheless, improvements of great significance have been introduced within the last twenty-five years—for example, the permission of elective studies; the superior requirements for admission; the increased attention to modern languages; the facilities for scientific instruction. Other changes are sure to come—and it is possible, if not probable, that among

[1] 1885–86, p. 14; 1886–87, pp. 14, 16, 75, 76; 1887–88, pp. 12, 83; 1888–89, p. 21.

[2] Illinois State Teachers' Association (College Section), December, 1888.

them the curriculum may be generally restricted to three years. It is worth while, however, to bear in mind that the number four has nothing sacred or mystical about it. It is an accidental, not an essential, limit. It is not significant in English, French or German education. We may endeavor to trace its origin to the mediæval quadrivium, but that should introduce us to four great subjects, not to a quadrennium. There is really no reason but usage why the college course should not be eight or more years, as in the German gymnasium, or a number of terms equivalent to three years in the English universities.

The curtailment of the curriculum is chiefly urged for this reason. The number of persons who proceed to professional schools, after taking a college course, is much smaller than it should be; it is diminishing; and those who pursue a collegiate and then a professional course postpone, till too late a period, the actual business of life. For all such persons a year of preparatory work can well be spared. Professor Shaler calls attention to a "dangerous distinction" that is often made between a pure and a practical or professional education. The objections to the curtailment of the course are numerous; for example, (*a*) the country is wonted to the four-years' plan, and our existing arrangements can only be changed with difficulty; (*b*) the curriculum is now crowded, and there is danger that curtailment will involve repletion; (*c*) the college cannot afford to lose the income which comes from tuition fees collected during four years. Consequently, Professor Shaler proposes modifications of the original proposition. We may, he says (*a*), give the degree of B.A. in exceptional cases, at the end of three years, while retaining for general use the four-year period; or (*b*), we may allow a qualified student to begin his professional studies in the third year of his college course; or (*c*), we may adopt both these methods of procedure.

The discussion reveals a good deal of dissatisfaction with the existing state of things, and, whatever opinion we may hold upon the question proposed, it is worth while to discover, if we can, the real difficulty, and then search for remedies. If I understand the complainants, the dissatisfaction is this: Professional men—lawyers, physicians, and ministers, as well as those who are devoted to other modern professions—begin their professional courses, as a rule, without having had that liberal preparatory education which the college curriculum has been supposed to give, and which its advocates believe it fitted to give. Those who go to college enter their professional life too late. I believe that at Cambridge it is only the Medical Faculty that has asked for a change; the Law School declined to ask it. Besides, many who pursue professional courses avoid the college altogether.

One of the most persistent attempts to point out and to repair the difficulty has been made during a period of several years past by the American Academy of Medicine. Dr. C. McIntire,[1] of Easton, Pa., presented to that body in 1882 some instructive statistics on this point. Among other things

[1] Dr. McIntire, in a note dated December 6, 1890, says that the American Academy of Medicine has been lately engaged in an inquiry as to the relative significance of the degrees of B.S., Ph.B., etc., when compared with the ordinary A.B. degree. A report upon the subject has just been made to the Academy, which will soon be published in abstract.

they show that (in 1851) of 12,400 alumni of eight colleges, but 7.5 per cent. became physicians; and that (in 1882) of 38,054 alumni of fifty-eight colleges, but 9.2 per cent. became physicians. He made a special study of those parts of the country near his own residence in Easton, and he found that, of one hundred physicians, eighty had no collegiate education whatever, and seven of the rest had followed a partial course. An examination of the Harvard registers revealed to him the fact that prior to this century 69.2 per cent. of the medical men whose names are there given had received the degree of B.A. In the first twenty-five years of this century 66 per cent. of the Doctors of Medicine had previously become Bachelors of Arts. Then came a surprising fall. Among the medical graduates from 1826 to 1879 but 35 per cent. had received a baccalaureate diploma. He gives a more striking illustration of the state of the times when he shows from the report of the United States Commissioner of Education for 1880, that among 18,000 students reported in schools of law, medicine, theology, only fifty-eight per cent. had received a degree in Arts or Science. This would indicate that half the professional students of 1880 in this country were not Bachelors of Arts. But, in comparing the statistics of recent decades with those of the early part of the century, it is important to bear in mind that the best preparatory schools now give as good an education as was then given by the colleges.

As remedial agencies for this acknowledged difficulty, I make the following suggestions:

(*a*) The authorities in our educational system should really as well as nominally distinguish between the requirements of three scholastic periods, namely, the School, the College, and the University; or, in other words, between what is essential, what is liberal, and what is special in a prolonged education.

(*b*) The period of college life, which of late years has been carried forward so that it extends on the average from 18.5 years to 22.5 years (in many, perhaps in most of the older colleges), may be brought back to an earlier age, say from 16 to 20 years.

(*c*) The significance of the baccalaureate degree should be restored—so that it may be, at least, a trustworthy certificate, an approximate measure, both of the capacity and of the acquisitions of the possessor. In one way or another, a concensus should be reached as to the "dignities, rights and privileges to that degree appertaining."

(*d*) The rigidity of the class system should be relaxed—so that those who are exceptionally favored or exceptionally strong may, if they choose, run the course in less than the average time; and likewise so that any who are embarrassed by ill-health, the necessity of earning a support, or the inadequacy of their early opportunities, may spend more than the usual time without any implied discredit—indeed, without attracting any attention. The exaggerated emphasis given to the class system in our colleges seems to me most unfortunate. (*e*) The enormous waste of time and energy at the school period, the time of preparation for college, must be arrested. The warning of President Eliot on this subject was most timely. It ought to be heeded

everywhere. It may be found in the *Atlantic Monthly* for August, 1888. There is also a comment upon this article by Prof. Fisk, of Evanston, Ill.[1]

If these remedies could be adopted, what would be the result? School life would usually end at sixteen years of age—when "matriculation" in a college would indicate that the scholar was ready for higher studies. College life would usually end at twenty years of age—when a Bachelor's degree would denote the attainment of a liberal education. Those who are fleet would go over the course in less time, and those who are handicapped would proceed at a slower rate. The hares would generally win; but sometimes the turtles. Professional or special education would then continue as long as the scholar might wish—three years being probably the usual period in schools of law, medicine and theology. The young man would thus receive at twenty-three years or upward his professional certificate or his diploma as a Doctor of Philosophy. He would have finished his university pupilage. An education like this would usually extend over eleven years; four in the preparatory school (from twelve to sixteen); four in college (from sixteen to twenty); and three in a professional school (from twenty to twenty-three); but the period might be shortened or lengthened according to individual abilities or disabilities. If, then, the stronger universities would take the ground that, as a rule, none should be admitted to the professional courses, or to the freedom of university instruction, until they had attained a Bachelor's degree, or in some other way acquired a corresponding preparation for advanced work, the reproaches, of which we are conscious, would soon disappear, and higher education would be more generally diffused, more wisely ordered, more serviceable to the public.

President Francis L. Patton, of Princeton, as co-referee, spoke on the question presented, taking strong ground against the proposed shortening of the college curriculum and denying the validity of any distinction between the college and the university. He said:

With the main points of contention in President Gillam's admirable paper I am in entire accord: that is to say, boys should leave the preparatory school a year earlier than they now do, and they should graduate as Bachelors of Arts a year younger than they ordinarily are. Then, after three years in the prosecution of special or professional study, they would take their degree of Ph.D., or receive their diplomas in Law, Medicine and Theology.

I do not think, however, that this end could be so well attained by shortening the college course—and here, again, I am in accord with President Gilman. The work usually done in the freshman year of our colleges can be better done in College than the School. It must be remembered, too, that a large part of a college education, and in some respects the best part,

[1] In the Proceedings of the Illinois Teachers' Association (College Section), 1888.

grows out of the conditions of college residence and the influence that the students exert upon each other. To shorten the period of college life by taking a year out of the curriculum would be a serious loss to the undergraduates, as well as to the college corporation.

I do not think that we shall accomplish much in the direction aimed at by emphasizing the distinction between the college and the university, for I do not think that it will be possible in this free land, full of ambitious institutions of learning, to secure a *consensus* of opinion among educated men that would settle the meaning of these two words. Institutions that call themselves colleges are many of them already doing in advance work that is supposed to belong to the university, and those that are not doing it hope to do it, and would be slow to part with the hope that, by-and-by, they will be able to do it. On the other hand, institutions that call themselves universities are, with perhaps a single exception or two, all conducting undergraduate courses of instruction, and would be slow to give up the great body of candidates for Bachelor's degrees, from whom they derive their chief support and through whom they make their strongest impression upon the intellectual life of the world.

It is well that there should be one or two institutions like Johns Hopkins University that will devote their energies, in the main, to the encouragement of advanced and highly specialized investigation; but a very few institutions of this kind will abundantly satisfy our intellectual demands.

Whether, then, the work be done in an institution that calls itself a college or a university, it is agreed that a certain kind and amount of liberal education should be acquired before the student enters upon professional study, or gives himself to the exclusive prosecution of a literary or scientific specialty. For the acquisition of such an education a period of four years is not too long.

The only question, then, is as to the method to be followed during these four years. Shall the studies be all prescribed; shall they be all elective; or shall they be in part prescribed and in part elective? The plan that, with various modifications, is being generally adopted in our American colleges and universities, whereby, during the freshman and sophomore years, the studies are in the main prescribed, and where in the junior and senior years an increasing range of choice in the selection of studies is open to the student, seems to me to be the best solution of a problem that is beset undoubtedly with great difficulties. It is a plan that combines in some measure, and, it seems to me, very successfully, the disciplinary system of the gymnasium and the freedom of the university—using the word in the meaning imposed upon it in Germany. It is the natural and logical development of our educational system, and is commendable, however unique, because it is the outgrowth of our historical conditions.

Professor Thomas Hughes, S. J., of St. Francis Xavier's College, then presented the following paper on

THE TEACHING OF PHILOSOPHY IN AMERICAN COLLEGES.

With regard to teaching of Philosophy in American Colleges, there is a practical suggestion which I should wish to make. It is with reference to an exercise of oral discussion, carried on in the lecture-room by the students themselves; for the purpose of such discussion, they will find the most important and extensive field amid the conclusions of inductive philosophy. Hence I beg to say a word first on philosophy induction, and then I will add another word upon the practice of oral discussion, as carried on by the students.

Philosophy, which is the knowledge of things by their general laws and ultimate causes, has received in the course of this century a very notable extension of its field. Rather, I should say, within its old field of speculative and theoretic truth it has been favored with a very distinct and analytic view of matter and material elements, which before it could regard only in the mass. In most lines of science this process of analysis, with corresponding efforts at synthetic classification, has been and is being pursued. And as we stand now in the presence of so many empirical results, our application of general laws to these particulars become more far-reaching; and we are stimulated so much the more to find out general laws which we may so apply.

It is not the mere classifications of many particulars into generalities which either finds out general laws or applies them. As often as not such classification proceeds by considerations of convenience, for the sake of handling in a readier way a multitude of facts. It may be a little better than an arbitrary grouping together of results. Thus we see classifications of natural beings made on the lines of such superficial qualities as color, size, place, time, etc. Generalizations of this kind are not philosophy. Men themselves might thus be grouped by their size, color, features, etc., but the anthropology which went no further than this could scarcely be mistaken for psychology. Philosophy is something deeper: it must expose internal, general and absolute laws. It goes down to the essence, and it classifies things by laws which are essential.

The logical process for arriving at these, when we start with particular, concrete facts, is called induction; just as the inverse process, by which we start from a general law and infer particular conclusions, coincides with what is called deduction.

Induction, then, is a form of argument which, from a sufficient enumeration of facts, making sure that no integral category of facts has been left out, arrives at the proximate general law which underlies every class of the phenomena, and therefore also underlies every individual fact, not only such as is already discovered, but also whatever in the same line of investigation may not yet be discovered. To be truly inductive, the law has to be based upon a sufficiency of facts known, so that no class of them is left unrepresented; it is then tested by being found to explain the known particulars in every class; and thereupon it stands out as a law ascertained with regard to every fact known, and also every other fact, which as yet unknown may still be met with in any class. This is fully exemplified in the law of gravitation.

No material substance will in the future be discovered, which will not be found conforming to this general law of matter. The process applies strictly to the sensible, visible world of physics; somewhat more loosely to the facts of moral and social human life; and scarcely at all to mathematical and metaphysical truths and laws, which are to be unfolded only by abstract reasoning.

The impulse which Bacon gave to inductive investigation has attached his name to this form of argument, otherwise as proper to the action of reason as deduction and the syllogism. Its application has revealed to all ages that fire burns. And it was applied to the philosophy of the schools after a fashion which is just in point with respect to the practical suggestion before us.

The Ptolemaic hypothesis of cycles and epicycles, as pretending to explain the movements of the skies, was an inductive conclusion. But Thomas Aquinas criticised that hypothesis: Since another one, he says, or "another root," as he calls it, might yet be laid down, to which the same phenomena of the skies might be satisfactorily referred. The very hypothesis of universal gravitation, as subsequently made, was itself at first but a tentative essay in the way of establishing an inductive law; which effort, later on, became the happy subject of mathematical demonstration; and then only resolved itself from the condition of an hypothesis into that of categorical proof.

Hence, to take lesson hereby with regard to this interesting yield of thought and theory which season after season is affording us, we may rightly consider it within the sphere of the lecture-room to test such proffered laws and theories, and to show that all hypotheses made to explain things are but essays of tentative logic, until conclusive demonstration proves them to be the true philosophy of things. Till then they are no certain knowledge of general laws. They are but the suggestion of possible laws. No doubt, as scientific men feel their way, they are making good efforts at inductive science; they are drawing lines of classification, along which they hope that the objective facts will divide and resolve into simpler elements and first principles. But it is only when the explanation comes as approved by every order of facts known, and is not kept in suspense for want of some category of facts not yet investigated, that the question is settled. Philosophy has made a conquest. It has discovered a law. How many such conquests have we made? A certain moderate number, chiefly in physics. As to metaphysics, we may notice that a transcendant attraction seems to be felt by many minds for passing on, and finding out by induction that ulterior and first principles of things. The actual literature of science, psychology, history, politics, is full of hypothetical bases of calculation, which are laid down and then extended, by the force of barely more than a mere analogy, into the domain of metaphysics and accepted only to be as constantly, and perhaps immediately, abandoned.

Now we can scarcely look upon the higher education of young men or women as at all complete, unless they are taught effectually and practically the difference between things proved and things unproved. If we will pass beyond the surface and comprehend the universe, it is no compliment to the cul-

tured understanding of our time to have light and loose doctrine accepted as palpable demonstration, when it is notorious that not a twelvemonth will be needed to supplant the latest tenet by another. This is as much an extreme, on one side, as on the other would be that of pertinacity, in not admitting plain, philosophical truth, even after a solid demonstration.

I would suggest, therefore, the reinstatement of true induction for what it is worth. And this means two things, which I beg to emphasize.

The first is, *a clear understanding of what constitutes a good inductive argument.* This is, perhaps, not difficult of attainment. Any respectable course of logic sets forth the elements, just as any good course of geometry specifies its own maxims and methods. Briefly, the requirements for an argument of induction are that a sufficiency of particular, experimental data be gathered to reveal, in the subject-matter, a property constant in nature, and that the property so found constant be formulated into law, just so far as it is borne out by the facts, and not be extended farther by some force of bare analogy. To exemplify, this fallacy is indulged in when a scientific man argues from the length of time it takes in one place to lay down a foot of loam to the time it took geologically to lay down a foot of deposit in another. Very many other elements claim consideration before such a conclusion is reached.

The second thing is *practice in the schools*, which will make students expert as well in establishing inductive conclusions as in detecting false inductions. Now, for the exercise of establishing inductive laws, it is an excellent practice to rehearse the processes by which conclusions of this kind have been successfully reached, in geology, mineralogy, astronomy, in the sciences of light, heat, etc. So that the very walks of life, upon which many of these young persons are about to enter, and in which they will be called upon to exercise the inductive faculty with accuracy and constancy, supply samples for the philosophical school to weave over again the processes which other minds have woven before them. There is nothing new, of course, in this suggestion.

But there may be something new in the inverse practice—that of detecting false inductions. The material for such a practice is superfluously abundant, and so far provision is made. Every month and week, in newspapers, periodicals and books, in the different fields of science, history, ethics, politics, religion, the materials for criticism lie scattered abroad. Students might develop an almost original faculty, by anticipating the certain destruction of flimsy inductions, chiefly physical, but also in the moral or historical order. The professor who follows the times can select a few samples sufficient for the purpose.

The form of the exercise is this: One student undertakes to defend as final the conclusion of some such process which another student takes exception to, as unwarranted. The latter makes good his exception. The defender distinguishes and denies, step by step, until the argument closes, in a definite allowance of time, with the clear establishment of one or other position.

This is one form of that system of disputation which, in the triennial course of philosophy that I am accustomed to, fills one-third of all the public

class-room work, one hour of formal disputation among set members of the course balancing about every two hours of lecturing by the professors. Robert of Sorbon said, long ago, "*Nihil perfecte scitur, nisi dente disputationis secetur.*"

Professor Simon L. Patten presented the following paper on

THE EDUCATIONAL VALUE OF COLLEGE STUDIES.

Until quite recently the typical college course was very simple. Latin, Greek and mathematics occupied the important places, and no other studies were allowed to interfere with their successful prosecution. Of late, however, all this has been changed. Many new sciences have grown up, and are demanding and securing places in our college courses. Almost every year sees the advocates of some new science securing the ear of college authorities and getting a representation in the college faculty. The old studies have been reduced in quantity to make place for the new; and yet there is an overcrowding which it seems almost impossible to avoid. Even if the old studies were entirely displaced, there would not be room for all the new ones, if they are pursued in that thorough manner which the advocates of each study demand for it. We cannot, therefore, hope to satisfy all the various elements that wish a representation in the college course; and hence comes the necessity to examine into the claims of each science, to see what it can do for the student, and how it can be taught with the greatest efficiency, and with the greatest economy of time.

A word, however, may be needed to define the place of the college course in a system of education. Elementary education is for the growing child, who is interested only in the living present. The academy takes the boy while yet so young as to need strict discipline and constant supervision. The college student is a budding man. The interests and feelings of a man are active, but maturity is lacking. He has a love for science, yet without that power for thorough study that comes in later years. The university and professional schools are for the mature man, whose plans for life are already formed, and who wishes to master some science or profession for definite ends. As college life comes just before maturity, that college is the best which gives its students work suitable to this stage of their development, and in constructing such a course of study, a measure of educational values is of vital importance. Before seeking for such a measure, certain important changes in the studies themselves, or in their relation to one another, deserve attention, since these changes have greatly modified many aspects of modern education.

In the first place, there is a large increase in the number of deductive sciences. Our ideas on educational matters have been derived largely from the Greeks, and in their time geometry alone had acquired that degree of perfection which made it the typical deductive science. At the beginning of modern times, physics assumed a similar form, and is at the present time almost as deductive and abstract as geometry. It must also be kept in mind

that mathematics, if thoroughly studied, now needs a much larger space in the curriculum than was necessary in the time of the Greeks. Elementary geometry was what Plato had in mind when he said that geometry was essential for admission into his school. Now we have a large number of mathematical sciences, each of which has a greater content and is more complicated in its deductions than was the geometry of Plato.

A second peculiarity of our present educational problems lies in the rapid lengthening of the present technical courses, and the additional studies needed to prepare the student to pursue his professional work with advantage. When these studies were first admitted into our colleges, the amount of time given to them was small, while a large part of the work of the student was directed toward his general culture. The higher standards now demanded of professional men require that the college should devote more time to practical ends. There is also a large increase in the number of studies which directly prepare the student for his profession. These two facts taken together show that but little time is left for those studies which give culture to the student.

The third preliminary fact of importance is, that most of these technical studies require a long course of mathematics before the student can take them up. Mathematics is now a necessity for almost all the physical sciences, and consequently the mathematical studies have to receive an emphasis in all work preparing for them. As an outcome of this change, mathematics must be regarded in a different light from that which has been customary. For a long time it was mainly a culture study. As it led to no practical results, it could be pursued in any manner that best tended to develop the mind of the student, and thus those parts and problems which had the highest culture value could receive an emphasis. As it is now taught, it has lost much of this exceptional position. Professional mathematics is substituted for educational mathematics. In other words, all that does not lead directly to some professional end is cut out of the course of study. The influence exerted by the technical courses upon the college curriculum is so great that even those who wish to pursue mathematics as a culture study are compelled to study it in books prepared for those who are pursuing it for a practical end, and thus they study the subject in a way fitted for professional work rather than as a means of culture. In all our text-books the influence of the study of mathematics for practical ends is apparent. They emphasize those theorems that have the greatest utility and reduce the other parts to a minimum.

The problem of education values may be looked upon in two ways. We may, first of all, compare the education derived from mathematics, language, physics, chemistry and economics, and inquire which of these studies, as a whole, gives the most culture to the student. This is the way it is usually presented in essays on education. It is said by those who represent culture, that it is better for the student to become a mathematician or a linguist, even if he does not intend to use the knowledge in his profession, because the power gained will make him a better engineer or chemist. I do not wish to underestimate the importance of this point of view; yet there is another conception of education that I regard as of more importance. It may be stated

thus: Shall a subject be taught with the view of making the student a master of it, and thus to enable him to obtain a utility from it, or shall it be taught with the purpose of producing the greatest effect upon the mind and culture of the pupil? Can, for example, a student get the educational value of mathematics without becoming a mathematician? Does he have to be a linguist to get a like result from language? If it is not necessary to be a thorough master of mathematics or of languages to get the culture they give, it is important to know what part of the study is of most educational value. All our sciences are complex wholes, some parts of which help the student in his mental growth, while others are detrimental and even make the student a narrower man instead of a broader one. A long course in a study may be necessary to a person who intends to be a specialist in that study or in a kindred one. The whole is a unit to him, the loss of any part of which would disqualify him for good work in this line. He must do a certain amount of work, not for culture, but for the indispensable knowledge which he needs for the best use of his own science. The educational value, however, lies not in the knowledge imparted, but in the effect upon the student. It gives him a better capacity for work, a faculty to do other work of a like character, purer ideas of life, greater confidence in his intellect and keener appreciation of his moral obligations. The utility of a study, therefore, and its educational value, cannot be too sharply contrasted. Yet this difference is too much overlooked in forming the college courses. All our practical courses are long and valued for their utility. These courses are split up into parallel sections, each having some one science or group of sciences prominent in them. This tendency has been dominant in the history of recent education, and as a result the student usually chooses, early in his college life, between several parallel courses, and takes one for its utility to the exclusion of all others.

If the college course is to be arranged for its educational value, a very different plan must be adopted. Each study must be examined, to see what it can do for the mental development of the student, and only that part of it in which this feature is prominent can be admitted in the college course. This plan would necessitate that each study be divided into two parts: the undergraduate, or college course, where that part is studied which has the greatest influence in developing mental power; and the post-graduate course, where further study is made for utility of the content. It should not be the aim of the first to make a student a mathematician, a linguist, a scientist or an economist. A senior may be without distinction in these or other studies, and yet leave college much more strengthened in character and with a greater intellectual power than if he had won the favor of some one professor by becoming an expert in his line.

I agree heartily with the thinkers of the old school in desiring to keep the college course a culture course. I differ with them, however, by thinking that certain parts of each of the new sciences contain elements that have as great an educational value as that of the old studies which they have displaced. The reason why the mental growth of students of science is at all in question arises from the fact that the newer sciences are so largely pursued merely for professional ends, and hence different parts of each science

receive a very different emphasis from that which would be given to them if pursued solely to develop the intellectual power of the student. A certain chemical analysis, for example, may be absolutely necessary for a student who wishes to analyze sugar; and if a course in chemistry is directed solely to making practical chemists, these parts must receive attention, and displace other parts of chemical knowledge which do not lead directly to some practical end.

The main defect of our college courses is not that we are studying the wrong subjects—utility studies instead of culture studies. All studies are utility studies or culture studies according to the manner in which they are taught. The defect lies in the fact that we teach each part or problem in the science for its utility, and not for its educational value. Each lecture or recitation is a preparation for the next one. The part is regarded only in its relation to the whole. Anything not contributing to the knowledge of the whole is cut out, and what is included in the instruction is valued only as a step to the next part or problem. To secure the highest educational value each problem should be thought of as if it were a whole—an end in itself—and the student should acquire a knowledge of it entirely regardless of its utility as a part of the science which he hopes to acquire.

Perhaps the best illustration of what I mean can be found in the elements of geometry as they are now taught. Why, for example, do we find thirty-two propositions in the first book of Euclid? Simply because the thirty-two theorems, together with a few corollaries, are needed for the reasoning of the subsequent books. There are many other problems similar to the thirty-two which we find in Euclid, but they are omitted simply because they do not form a necessary part of the chain of reasoning by which the whole geometry is bound together. The propositions which we use are not those forming the best specimens of reasoning, and, therefore, most calculated to develop the mind of the student. No time is allowed to diverge from the beaten track. As soon as these necessary propositions are mastered, the student passes on to the next book, where the same process is continued. Here, again, only those problems are found that are of utility to the student in the subsequent books. Everything is cut out that does not lead to this one result. When, therefore, we have ten books of geometry arranged in this way, it seems only just to say that the student obtains from each of them simply its utility, and not culture, which should be the aim of the student.

To illustrate my meaning further, in showing how geometry might be taught for its educational value, suppose that in Euclid the fifth proposition was omitted, and this the student himself must supply. Would not the effort of the student in endeavoring to supply this missing link be of much greater educational value to him than the learning of a dozen propositions demonstrated in full in his book? If such a process was pursued, the student would have to guard against many errors of reasoning, from which at present he is kept by the completeness of the demonstration contained in the book. No one thinks of doubting the truth of the demonstration that Euclid gives, nor does the student try of himself to supply another; yet all the various elementary propositions could be proved in some other way should the student be given the time and the proper encouragement to work at them.

Not only has the mathematics in geometries sunk from an educational to a utility study, but a condensed form of mathematics has taken the place of the completer demonstration of the old geometries. Algebraic demonstrations are substituted for those of Euclid, which, while they add to the completeness and utility of the study, yet are at the expense of its educational value. The student does not realize what has been proved; he passively assents to the conclusions that have been reached in ways of which he is not fully cognizant.

What is true of mathematics is also to a large degree true of the study of physics. There has been a complete change in the character of physics during the last fifty years. The old demonstrations, which were based on experiment, have been displaced by mathematical formulæ. Astronomy, also, has gone through this change in the course of its development, although not to so great a degree as physics and mathematics. Chemistry is undergoing a like change, and may soon be fully as mathematical and abstract in its methods of proof as physics has already become. Even in biology the same change is taking place. Natural history has been displaced by deductive biology, and the influence of Darwinism has given to the deductive parts a prominence which they never had before. We must, therefore, look elsewhere than to these sciences for culture studies if these tendencies proceed much further. Another age may find them all as deductive and as abstract as mathematics, taught only for their practical utility, and each part presented merely in its relation to the whole body of doctrine of which it is a part. Any facts, however interesting they may be in themselves, will be overlooked if they do not occupy a necessary place in any scheme by which the whole science is presented.

The educational value of any subject, however, cannot be determined from its content alone. It depends largely upon inherited qualities of the students and the classes in society from which they come. As an outcome of the present and past environment and education of mankind, some mental faculties have been much more highly developed than others, and hence those studies which call these faculties into activity present the least difficulties to the average student. If a student has inherited those qualities which make a science easy for him, it should not receive that emphasis in his systematic education that would be otherwise necessary. The more fully developed any faculty is, the less relative attention should be given to it. The training of the student previous to entering college is also of great importance. At least a third of the time in the elementary and secondary schools is devoted to mathematical studies. As a result, our students come to college after studying those parts of mathematics which have the highest educational value. They have as much mathematics as Plato required, and could stand the tests that he laid down.

From this point of view, the highly deductive sciences give less culture to college students than other studies. Mathematics, as an illustration, has been studied so persistently and so thoroughly by many generations, that we find a mathematical faculty in our average student which was not possible at an earlier period. By this I do not mean that there are no persons to whom

mathematics, even in its elements, do not present great difficulties, but college students do not usually come from that part of society. We have, as a rule, representatives of families among whom for many generations mathematics in some form has been so thoroughly studied that the minds of the children are capable of receiving mathematical instruction, not only with less trouble, but also at an earlier age than was formerly the case.

The educational value of a subject also depends largely upon the society or civilization of which the student is a part. That study gives the greatest culture that trains the mind for the class of judgments which must be made most frequently by the average citizen. As the phenomena to be dealt with in life are complicated and complex, the less deductive sciences correspond more closely to these conditions, and give more culture. If a student in college has been drilled mainly in simple reasoning from unquestioned premises, he goes out in life unprepared to deal with problems where the premises need examination, and the conclusions must be modified by making due allowance for the conflicting causes which combine to produce the given result. It is, I think, usually overlooked, that geometrical reasoning, when applied to the affairs of men and society, is a kind of fallacy. In books on logic, like that of John Stuart Mill, this kind of fallacious reasoning is fully dealt with. The errors that flow from it are so numerous that any one who gets into the habit of reasoning mathematically is sure to make serious errors when he reasons upon the affairs of every-day life. The mathematician reasons from a few simple premises, and reaches conclusions which are never dependent upon modifications of his premises. He thus becomes a model of poor reasoning, unfit for imitation by any one who deals with more complicated phenomena.

In most of the sciences the errors from reasoning dogmatically from simple premises are apparent; yet perhaps political economy furnishes the best example of them all. The mistakes of the orthodox economist arise from this fallacy. He allows for only a very few premises in his reasoning, and the conclusions to which he arrives are seldom modified by the introduction of any new facts. When he reasons about foreign trade, the laws of money, of exchange, or distribution, he starts from some one or few axioms, and then reasons from them with all the precision of mathematical demonstration, and regards his results as conclusive as if he had been occupied with a mathematical problem.

The educational value of a science depends also upon the stage of its progress. A science is complete when it has reached the deductive stage. Then all the various parts are closely joined together and form one body of truth. It begins with an inductive stage when the opposite is true. All the generalizations depend upon observation and a study of the facts. These two stages—the deductive and inductive—cannot always be sharply contrasted the one with the other. At some period in the development of each science, it is in a transitional stage, passing from one to the other; and in this stage it has its greatest educational value. On the one hand there is an immense mass of inductive facts which have not been co-ordinated in a way to show the law upon which they depend. On the other hand, certain parts

of the science have been so arranged that the law can be clearly seen. These latter parts have become deductive, and from them can be seen the method which must be pursued in the other parts in order that they too may be changed into a deductive form by the discovery of some new law. This stage of transition, from the inductive to deductive, encourages the self-activity of those who study the science. There is an incentive to study and to make discoveries, which is not possible in a mere deductive science on the one hand, or in a mere inductive science on the other.

The sciences also that are in a state of transition have the great men and the enthusiastic teachers. When, for example, had we the greatest mathematicians? Was it not at just that period in the development of mathematics when a part of its truths had already been demonstrated, and thus incentive was given to discover the basis upon which other propositions rested? The same facts, also, are clearly shown in the history of physics, astronomy and other sciences, that have already passed into the deductive stage. Just at that period when the transition from the inductive to the deductive was being made is that time when its great men appear. Biology, for example, at present possesses the largest number of our great scientific men, simply because it is in a state of transition, and this state prompts the zeal, self-activity and mental growth by which great men are made. The study of a science in this stage of its progress makes the great men, and not the great men the science. The gaps in a science are the incentives to the industry and activity which create the power in the students of the science to fill them.

If a science is taught for culture it must be presented as it was when in a state of transition from the inductive to the deductive stage. When a science is beyond this point, it should be presented, not in its final form, where its utility is greatest, but in the form it had at an earlier date. Present a science as it was when its greatest thinkers lived and worked, and it will be most suitable for college students. Geometry among the Greeks, when there were certain gaps in its reasoning not yet filled, is the kind of geometry that should be a model in our schools, rather than the present complete form, which is always presented. The Greeks were right in attributing a great educational value to geometry, as it was then in that state of transition which uses both inductive and deductive reasoning. We are wrong in giving as high a value to it, because it is now a complete science, and as a result, a lifeless science, unless modified in some way by the teacher, so as to throw it into a form more like what it was in the ancient world. Astronomy in the time of Kepler, and physics in the time of Newton, although these sciences then lacked that perfection which they now have, gave to teachers and students an enthusiasm not to be obtained from the condensed and complete form in which the sciences now are.

The educational value of a science depends also upon the character of its premises. The habit of using premises which the student does not question creates a dogmatic spirit. It dwarfs his mind by confining him to that form of logic which deals only with relations of premises to the conclusion. Such reasoning excites little interest or activity. It calls attention to the

details of reasoning without awakening a desire to investigate its foundations. Formal reasoning is the same to all men, and depends for its correctness merely upon the rules of logic. The study of premises, however, is a study of mankind and of the laws of thinking, and is a necessary condition to good reasoning upon practical subjects. The same premise has a different degree of force upon minds in different stages of development and in different social environments. To question the premises from which one reasons, opens up the broadest problems of psychology, and forces one to examine into the complicated phenomena of the society in which one lives. The feeling, therefore, that his premises are open to discussion, gives the student much greater incentive to accurate thinking than he would have if he were studying a science with axiomatic premises.

The opposite of this is, of course, true in professional studies pursued for utility alone. In them an unquestioned confidence in the premises used is a requisite. No one would become a successful engineer or chemist who had not been drilled in the elements of his subject until he acted upon its principles axiomatically. Drilling and cramming may make good professional men, but they destroy the independence and self-activity of the student, and make his thinking mechanical and his reasoning dogmatic. If a good professional man is wanted, let him study deductive sciences with unquestioned premises, but beware of praising the same course of study for the culture it gives.

I have thus far called attention to four factors which demand attention in a discussion of education values. There are, doubtless, other factors worthy of consideration, but these, I feel sure, are those which throw the most light on the present aspects of our educational problems. I will repeat them for the sake of emphasis: (1) The inherited qualities of the college student; (2) the life the student is to lead and the judgments he must most commonly make; (3) the state of progress of the science—whether inductive, deductive or transitional; (4) the character of the premises of the science and the confidence the student has in them. If these are the leading factors, they show that there can be no cast-iron rule as to the educational value of the different studies. Each age must decide the problem for itself, as the elements in it are modified by every change in the environment, in society and in men themselves. Nor can the contest be decided in any such a crude way as is involved in the struggle between science and language.

The demand of the present age for more science in our culture courses is in the right direction, but it must not be overlooked that the very success of science will change the whole aspect of the present contest in the near future. To make all the physical sciences completely deductive is the goal of our civilization. May this end soon be reached! As we approach the goal the utility of these sciences will so rapidly increase that they will be taken up merely for professional ends, like law or medicine. Thus, with the increase of their utility to man, they will be of less value in educating men. Whatever makes them more fitted for utility studies makes them less fitted for general culture. Coming ages will thus be forced to look elsewhere for a large part of the studies which are to be prominent in the college curriculum of the future.

It will be seen, I hope, that I have no desire to disparage the deductive sciences. Their importance to men cannot be overestimated. But in the educational problem it is not with the mature man and his needs that we have to do. As teachers, we are interested only in growing minds and how they may become best fitted for the world in which they are to think and act. We can hope, for example, that electrical engineering may become more deductive and thus more useful, and at the same time think that this desirable change makes electricity less fitted for a college study. But where can we look for studies with a high culture value if the physical sciences have already become or are soon to become utility studies? Of course, from the premises from which I have started, there can be no general or final answer to this question. The conditions of the problem must be changed from age to age by the progress of science and mankind. Yet for the near future the solution of this problem does not seem difficult. Those sciences are likely to be the progressive sciences that are based upon and grow out of the physical sciences. There is a definite order in which the different sciences stand to one another, and each science must wait its turn before its problems can be solved. Mathematics, astronomy and physics, for obvious reasons, were the first sciences to be studied in a systematic way, and hence were the first to reach the deductive stage. Chemistry and biology, being most closely related to them, next received attention and became progressive as soon as the knowledge of the first group was complete enough to allow efficient work to be done in the second. The third group is the moral sciences, and it is in them the great advance of the near future seems to lie. As soon as the sciences that precede them become deductive, they can get the proper groundwork upon which to build. Even at the present time their growth and progress have been remarkable, and with that additional help which will soon come from the more complete form of the sciences upon which they depend, they will be the centres of intellectual activity and become the studies having the greatest educational value. Politics, economics, psychology and ethics are the group of moral sciences in which the hope of the future lies, and to them increasing attention must be given until they form a prominent part of the college course. In the education of the future they are likely to have that prominence that the mathematics obtained in the past. Had Plato lived in our day he would see in these sciences what he then saw in geometry, and would reconstruct his teaching so as to conform to the new conditions.

Judged by the standards used in this essay, these sciences form an ideal group. They develop those qualities and faculties which are now most deficient in men. Bearing directly on the affairs of everyday life, they cultivate that class of judgments which are of the most value. The progressive state of the sciences will make the teachers enthusiastic, and the interest which the students naturally have in social problems will increase their energy and self-activity. The character of the premises will discourage dogmatism and prevent the errors in reasoning to which students of mathematics are liable. The mutual dependence of these sciences upon one another will force the student into so many lines of investigation that he will secure that breadth and culture needed to keep him from becoming a narrow specialist.

When college authorities fully recognize the value of moral sciences, and give them their proper share of the time of the college student, the advantages of a college education will be much more decisive than they now are. It cannot be charged that college life makes students unpractical when the vital interests of all men have a prominent place in their education. Teach the young to reason correctly, to appreciate history, and to love facts on their own account, and they will carry through life a way of acting and thinking that will make them useful in business and an honor to society.

Do not think, however, that because I would give to the moral sciences a prominent and perhaps a dominant place in the college course, that I would have the college turned into a special school for their study. An ideal college course must always avoid such a result. The value of any study lies largely in its elements. Complete courses, making the student a master of what he studies, must be given only in graduate work. The college course must select only those problems in each science that have a high educational value, and study them for this value, and not for their utility as parts of a connected whole. In this way all the sciences can have an adequate representation in the college curriculum without that crowding which at present is so much to be regretted. We might not make our students masters of any science, but we would do far better, because they would be masters of themselves, without bias, intolerance, or bigotry, and ready to take up the duties of life with an earnest purpose to make the most of themselves and the society of which they are a part.

Professor Nicholas Murray Butler presented the following report from the Committee on Pedagogics, stating that no quorum of the committee had been obtained to pass formally upon it.

To the College Association of the Middle States and Maryland:

Your committee, appointed at the last annual meeting to consider what instruction in pedagogics should be provided in our colleges and universities, beg leave to report as follows:

The committee do not believe it within their present province to enter upon any general discussion of the subject of pedagogics and the theoretical necessity which exists for its careful and systematic study. They prefer rather at this time to present, very briefly, a statement of what in their judgment can and should be done at once by our colleges and universities to provide for a demand which is recognized as growing more and more imperative. As regards the universities which are members of this Association, it is a pleasure to be able to state that the subject of pedagogics is highly regarded by the authorities of each, and that among them they represent the best that has been done or is being done in this country in this direction. With Professor Hall's retirement from the Johns Hopkins University, the systematic work in pedagogics at that institution unfortunately came to an end, but we hope that this suspension of activity is to be only temporary.

At the University of Pennsylvania, it is understood that plans are under consideration for a very considerable and important development in this direction. At Princeton, a university course in pedagogics is in successful operation under the direction of Professor West. In connection with the University of the City of New York there has been organized a separate School of Pedagogy on the same plane with the professional schools of Law and Medicine. At Columbia College, extensive and varied courses in the History and Science of Education are offered by the University Faculty of Philosophy. At Cornell University, under the guidance and direction of Professor S. G. Williams, instruction in pedagogics of university grade has been for several years successfully given. It is evident, therefore, that the larger universities of our Association are taking a practical interest in this question, and we may safely take it for granted that they will continue to work out, each on its own lines, the solution of the problem which is being pressed upon them by the consideration of this subject.

The case is somewhat different with the colleges. Those institutions are more limited in resources and have more special and local claims made upon their educational activity. We are of opinion, however, that almost every one of these institutions can do something that is practical and useful toward fitting their graduates to become more thoroughly equipped for the profession of teaching. The work which they can and should undertake is of three kinds. During the senior year, and perhaps during the latter portion of the junior year as well, an elective course should be offered to the students in the History and Science of Education. The instruction should be largely given by lecture and need not necessarily fall to the lot of a single officer of instruction. The professor of history would undoubtedly be able to give from ten to twenty lectures on the development of educational thought and theory. The professor of psychology could supplement this by a course of instruction in the subject-matter of his own special science, viewed from the standpoint of the teacher. Such works as Pfisterer's *Psychologische Pädagogik*, Waitz' *Allgemeine Pädagogik*, Harris' *Thoughts on Educational Psychology*, and Preyer's *Mind of the Child*, will suggest the lines which this course would naturally follow. To these two courses—one on the history and one on the psychology of education—there should be added instruction by the professors of the several departments on the pedagogic aspect of their own specialties. The professors of Greek and Latin, for example, could develop in a short course of lectures the history of classical instruction, its significance and educational value, as well as consider which may be the wisest and best methods of teaching the classics. The professors of mathematics, natural science, and the several departments of modern language and literature, could perform a similar service. Along these lines a course of instruction of perhaps a year and a half, of some two or three hours a week, could be readily provided; and it would go far—without adding appreciably, if at all, to the expense of the college—toward accomplishing what is sought by those interested in this movement for the scientific study of education. Of course, the ideal college organization would include one or more professors who could devote themselves specially to the cultivation of this field. It

would provide for some work in practical pedagogics and the art of teaching. It is not necessary, however, to wait until a thing can be done perfectly before doing it all.

Every college in your Association, so far as your committee are able to judge, could put into practice the plan outlined above. In order to make this teaching of some practical value to the student, the State Legislature should be asked to recognize as equivalent to the diploma of the Normal School of the State, the degree of any student who had, during his undergraduate course, elected the study of pedagogics as above outlined. Although the college graduate would perhaps not have done as much work in some branches of practical pedagogics as the Normal School graduate, and although it would have been difficult, if not impossible, for him to acquire any experience in teaching under expert supervision and direction, yet his superior scholarship and more mature training will go far toward qualifying him for teaching in secondary schools, toward which he will naturally turn. For this his equipment is undoubtedly fair, and should be recognized by the State.

If, then, the universities of this Association continue their present activity in the development of pedagogic instruction, and if the smaller colleges will endeavor to work out some practical application of the suggestions made above, we are of opinion that the colleges and universities of the Middle States and Maryland will, within the limits of their resources, be making very commendable provision for instruction in the science of education.

All of which is respectfully submitted.

NICHOLAS MURRAY BUTLER,
Columbia College.
EDWARD H. MAGILL,
Swarthmore College.
HENRY M. MCCRACKEN,
University of the City of New York.

November 28th, 1890.

On motion the report was accepted, and the committee continued, with the suggestion that it report from time to time at future meetings of the Association as to the progress being made by the several colleges and universities in the development of instruction in pedagogics.

Professor Allan Marquand, of Princeton, as Chairman of the Executive Committee, reported the admission to the Association of the following colleges: Washington College, Woodstock College, Catholic University of America, Columbia College, The National Deaf-Mute College, The University of the State of New York, Colgate University, St. Stephen's College and Bryn Mawr College. The withdrawal of Westminster College was also reported.

On recommendation of the Executive Committee that the referee and co-referee on each subject be confined to twenty minutes in presenting their papers; that the readers of papers be confined to fifteen minutes, and participants in the general discussions to five minutes—this was adopted as the rule of the meeting.

On motion, the President appointed the following committee of three to present nominations for officers for the ensuing year: Professor Butler, of Columbia; Professor Marquand, of Princeton; Professor Hughes, of St. Francis Xavier's College.

President Low, of Columbia College, extended an invitation to the Association to meet at that institution either in 1891 or at such other time as might be determined, assuring it of the cordial and hearty welcome of the City of New York.

President Adams, of Cornell, extended a similar invitation to hold the next meeting at Ithaca. On motion, the Association adjourned until 3 P.M.

The delegates were entertained at luncheon at the Nassau Club.

AFTERNOON SESSION, Friday, November 28, 1890.

The Association re-assembled at 3 P.M., with President D. C. Gilman in the chair. Provost Pepper, as referee, opened the discussion on "University Extension." The following is an abstract of his remarks:

UNIVERSITY EXTENSION.

The questions I would submit are:

What is University Extension, and what are the methods by which it has been advanced in England?

What are the results that have been obtained there?

How is the movement supported?

Is there a demand for it in this country?

What methods are best adapted to our conditions?

What results have already been obtained here?

When James Stuart, of Cambridge, in 1873, first started the movement, he established two or three centres, with not more than two hundred students, nearly all of whom were women. When Oxford, in 1881, adopted the movement, its early efforts were not successful, because the method chosen was too rigid and academic and lacked the flexibility to adapt itself to the needs of different portions of the community. From these small beginnings the results have grown, until, in 1889, there were in England and Wales three hundred

centres with forty thousand students enrolled in their classes. Such a result is surely notable. It must mean that James Stuart did not create a demand, but that he simply formulated the means of meeting a widespread demand. He no more created a demand than does the railroad which is constructed through a fertile agricultural district, peopled with scattered farmers, and which is speedily followed by the inpouring of population, the growth of towns, and an active interchange of products with distant parts. University Extension found in England a vast field of intellectual capacity and productiveness which was lying fallow for the want of cultivation and of channels of communication.

The means by which so notable a result has been attained deserve careful study. These means are very simple. The English method is comprised of the following elements:

(1) Lectures, and these are given in courses of twelve, and sometimes in half courses of six. They are not lectures on indiscriminate subjects, but are arranged in well-composed courses upon a definite educational plan.

(2) The Class. The lectures are open to all upon the payment of a small fee, but all who really desire to profit by the instruction and become students remain after the lecture and form the Class, where an hour is spent with the teacher in conversational discussion of the subject.

(3) The Syllabus, which is a necessary part of each course, contains an abstract of each lecture, with a list of works recommended for collateral reading, and a list of questions which are to be answered by each student in the weekly exercise.

(4) The Weekly Exercise. This is prepared by the student, and consists of a written paper sent in to the lecturer. It may comprise but a brief statement or it may be a lengthy article. It is based upon the lecture; upon the discussion in the class meeting; upon all collateral reading pursued. Its object is to train the student to work for himself; to think for himself; to know where to look for information and how to read. The teacher reads the exercises, makes his notes upon them, and these serve partly as the basis of the following week's Class.

(5) The Examination. Each part of the system is independent. Students may attend the lectures and the classes, and study the syllabus and prepare the exercises, but need not take the examination. Those, however, who desire the certificate also complete this step. The results of the examination are joined to the results of the weekly exercises, and the status of the student, as thus determined, is most fair and accurate.

(6) The Certificate is awarded to those who have faithfully completed the course, and have successfully passed the examinations. Already these certificates have a definite and considerable educational value, and receive, under certain conditions, the recognition of the great English universities as equivalent to a certain amount of work done actually at the university.

I may add that small loan Libraries are provided by the central authority to be sent for a time to any local centre where the books required for collateral reading are not available.

It is the testimony of those who have taken part in this instruction, not

only on the part of the teachers, some of whom are also professors in the universities, but of the students, many of whom are university graduates, that the educational value of this University Extension work deservedly ranks high in comparison with the work of the universities themselves. I confess it seems to me that this must be a just estimate. There seems no reason why the educational result should be any less valuable because the work is extended over more time; because, for instance, it takes years to complete in this way the study of a subject which could be mastered, in the course of months, by a student at the university devoting his whole time to it. The method embraces all the elements of good educational work. A real teacher is brought in close and stimulating contact with true students. The system is flexible; each receives and in return gives; teacher and student are encouraged to great exertion; the range of subjects is practically unrestricted, and it would seem that the disciplinary educational value of such courses should be no less than that of the university curriculum.

How is the movement to be supported? As far as possible the aim has been to make the centres self-supporting, but even in densely populated parts of England, with a highly intelligent community, this has not been found practicable. There must be a contribution from a central fund. Oxford and Cambridge are slowly accumulating funds available for this purpose, but have not yet reached a point where the income has been expended. Each town where a centre is to be established, is required to pay forty-five pounds sterling, of which five pounds go for expenses of the examinations and the balance to the lecturer. Effort is made to meet any deficit by local subscription in the town where the course is given.

The lecturers have been drawn from the corps of university professors, college lecturers and college fellows, and a certain number of special University Extension lecturers have also been appointed.

Turning now to the question whether any such movement is needed in this country, it might seem that the great number of colleges would render it unnecessary. But it is to be noted that the instruction given in University Extension work is quite different in kind from that given in most colleges, and is addressed to an entirely different constituency. In our colleges the instruction is necessarily limited in scope and treatment by the capacity of the student and the length of time at his disposal. It is addressed also only to those who are able to give three or four years continuously to its pursuit. The essence of University Extension instruction is that it is addressed alike to all classes, each taking from it what he is able to receive, that it is continuous in its method, and that it is provided at hours which are consistent with the ordinary daily avocations of life.

The means are provided and the hope is entertained that many University Extension students, whether artisans or shop girls, or merchants, whether they have enjoyed previous college education or not, will continue to pursue Extension courses year after year throughout their lives. The manner in which certificates earned by such work shall issue, and the form which they shall take, must be considered carefully. It would seem proper that the authority should repose in the Society which, in a manner, represents all the educational

institutions which in any given area are concerned in the University Extension teaching.

The immense growth of such organizations as the Chautauquan movement in this country and the National Home Reading movement in England surely indicates a great and widespread desire for larger facilities than those now provided.

So far as this movement concerns the colleges I believe that it is destined to grow rapidly here whether the colleges interest themselves in it or not, and that it will develop independently of the colleges unless they choose by prompt and liberal action to put themselves in a position to influence, and, as far as proper, control it. It appears likely that if the colleges occupy proper relations to it, there will be important reciprocal advantages. The professor who takes part in University Extension work may be greatly helped by it. He will meet an audience widely different from the class of students whom he daily teaches. His mind will be stimulated and freshened; his methods will grow more flexible; he will return to his college tasks with renewed zest and energy. The influence of the colleges will be spread widely. There will be an uplifting of the intellectual activity of the community; a deepened interest in educational questions, and it cannot be otherwise than that there will be an increased flow of the youth of the country toward centres of learning.

Undoubtedly the fact that our population is spread over such an immense area must call for differences in the method of organizing the work in this country. There are comparatively few Fellows connected with any of our colleges, and it might be supposed that it would be difficult to secure much help from the Faculties. When we first determined to take up this work in Philadelphia and adjoining territory this was the first problem which confronted us, and we addressed the question to about 150 teachers connected with different institutions.[1] Cordial replies promising co-operation were received from about seven-eighths of those addressed. Our idea has been to organize the work in connection with groups of colleges so situated that a considerable area could be covered without the members of any faculty being asked to travel such distances as would interfere with regular college duties. It has not been thought wise to look forward to having an endowment fund in the hands of any one institution, but rather to form an association upon a broad and popular basis with a small annual due. The Philadelphia Society for the Extension of University Teaching has been formed in this way. The annual due is five dollars. Life membership is fifty dollars. In the course of a few weeks a membership of 900 has been secured. It is reasonably expected that this number will be increased to several thousand. The income from this source will suffice to meet any small deficit at centres which may be formed, and also, it is hoped, to secure the services of several University Extension teachers who would be able to devote their whole time to the work.

[1] Princeton College, Lehigh University, University of Pennsylvania, Swarthmore College, Haverford College, Bryn Mawr College, Bucknell University, Franklin and Marshall College, Jefferson Medical College, Medico-Chirurgical College, Muhlenberg College, Stevens Institute of Technology, Dickinson College, Lafayette College, Lebanon Valley College and Delaware State College.

Already fifteen centres have actually been organized, and the Secretary informs me that applications have been received for eleven more, which have not been organized solely on account of lack of time. It will be conceded, I think, in view of the rapid and great success of the movement in England; in view of the simplicity and educational value of the methods employed; in view of the ready adaptability of these methods to our country and of the instant response which their proposal here has elicited, that this is a movement which deserves attention from the colleges, and which, with proper co-operation on the part of the colleges, will assume large proportions and important relations.

I should regret to see the establishment of a National People's College or University, threatened as it would be with socialistic or communistic tendencies. It appears much more natural and safe that the existing educational institutions should lend the weight of their position and resources to the movement, and, by joining freely on the most liberal and popular basis, succeed in influencing and shaping it.

President Low, of Columbia, as co-referee, continued the discussion. The general discussion of the same subject was participated in by Dr. W. T. Harris, United States Commissioner of Education; Professor Houston, of Toronto; President Adams, of Cornell; Secretary Melvil Dewey, of the University of the State of New York; Professor F. H. Stoddard, of the University of the City of New York; President Fell, of St. John's College, and Dr. E. H. Magill, of Swarthmore College.

President Seth Low, of Columbia College, said:

As to University Extension, I can add to what Provost Pepper has said only the statement as to the situation in New York. So far as I know, no systematic effort has been begun to give university instruction in a serious sense to the people. There is a university and school extension movement which reaches many of the public school teachers. A series of six lectures is to be given this winter in many of the public schools, to be paid for by an appropriation made by the State. Columbia itself maintains a course of free Saturday morning lectures.

At the last meeting of the alumni of Columbia, a reference was made to a committee to try to develop such a course of instruction as Dr. Pepper has alluded to; but, so far as I know, practical steps have reached very little way thus far, if at all, beyond the ranks of teachers—those who are engaged either in public schools or in private schools.

I find myself thus in the embarrassing position of one who is unable to talk on the subject assigned to him, but who wants very much to talk on a subject that is not assigned to him. If it is permitted by the Association, I would like to use a part of my time in speaking on a subject suggested by

President Adams' paper, but in a certain sense I feel that it is unfair because it would be turning the attention of the Association from that which is laid down in the programme.

(Go on! Go on!)

President Adams in his paper this morning made reference to the changes which had been brought about in the organization of Columbia College. He stated, so far as he had been able to judge from the printed documents, that the character of the work after our students had reached their senior year continued to be disciplinary, as it was before. I think that he received that impression from the examination of an old publication, because last year that was abandoned; and, as far as Columbia is concerned, we are entirely prepared to adopt his conception of the university as distinguished from the college. That is, the college is concerned with disciplinary training, and the university with a high grade of specialization. He also pointed out that at Columbia a man might acquire at the same time his degree of Ph.D. and his degree of LL.B. in the Law School. That is correct. Whether that will always be so I am not prepared to say, but the explanation of the existing situation is very simple. The process of development at Columbia has been this: At first there was the college; then the institution threw out its professional schools, and we represented for a long time only liberal culture and professional training; last has come the non-professional specialization work. When we had our law school in successful operation for many years, we wanted to broaden the studies of the students. We wanted them, so far as possible, to know something of public law, political economy and history, and such subjects as are taught in the School of Political Science. Now, such a law school in a large city has to contend with some difficulties. Our law students are greatly tempted to enter offices at the same time that they are studying law; and the policy of Columbia, in developing side by side with the law school the school of political science, thus allowing the student to study in both, has been very effective in inducing men to spend more time in study and less time in office work. I do not mean to say that we have overcome the competition of the offices, but I do mean to say that as a step in that direction the policy has been altogether successful. And that leads me to say that we think of ourselves at Columbia as uniting all three of the departments of education to which, I think, President Patton alluded. We have the disciplinary and liberal work of the college, and we have the non-professional specializing work of the university, and also the specializing work of the professional school. All the University Faculties, professional or non-professional, are open to the studious. We have thought that it was proper that study for the profession at that point should count as part of the equipment of the Bachelor's degree. The effect of what we did has been this: Formerly, or until last spring, Columbia College consisted of the school of arts or the college proper, and a series of schools which were almost as much unrelated to one another as if one had been in New York, one in New Haven, and the others in Boston and Baltimore. A student entered one school and went through it, and came out as a graduate of that school only. To-day each student matriculates as a student of

Columbia. We have a law school still, where law is taught, but the law school is now a part of the University. Some students study history, or philosophy, or political economy, and even science, while they are also carrying on their work in law. The same is true as to all the other schools. The combinations thus effected are most interesting, and in a few years will contribute to our experience and knowledge on many questions.

The effect of making the senior year practically the first year in the University, I think is going to operate in this other way: Instead of keeping men in Columbia four years, we will keep a much larger number than heretofore six years. There is a saving also from great loss of time for the student in that he is encouraged by this system to choose the direction in which he will specialize before he is out of college with his first degree in his hand. Under the system that now prevails at Columbia students are expected, practically compelled, to specialize from the commencement of their senior year. Even if they find that they have specialized mistakingly, it is an advantage to learn this before they find themselves out of college. I think we see already the effect of the system in making our students realize that the Bachelor's degree is but the beginning of a thorough education, that it is but one step toward the true goal.

Mr. President, I wish again to apologize to the Society for turning their mind from the subject of the moment, backward into this old channel, yet I felt that I might say a word or two on this subject because I know something about it, more profitably than I could hope to speak upon the subject assigned to me.

Commissioner Harris remarked:

University Extension means, as I take it, that the managers of the higher education of the country should control and direct all the education of the country, they being the persons who have charge of education in its most complete form. Higher education is the blossom, as it were, of our entire system, and its directors should be expected to understand the correlation of the different parts of education and, of all men, should know what is called by Mr. Bain "the educational values" of the various studies. Only those who do know this can lead in a proper manner the education of the people. I beg leave to say that in my opinion it is high time that the universities of the country should take up this idea of University Extension and act upon it. I do not think there has ever before been a time when this was so important. For twenty or thirty years the university has been progressively withdrawing itself from contact with the people. It began when the college raised its standard so that more work was required in the preparation for entrance, a year's more work and in some cases two years' more work being rendered necessary. The college by this withdrew itself from close contact it had once held with the people's school, and a new class of schools have developed—the high school and the academy—which formed a layer separating the colleges from the common schools of the country. This separation went on gradually during the first half of this century and more rap-

idly since. Formerly the people felt that the common school was quite near the college—two years' work after the district school would fit one for entrance. Twenty or thirty years ago an effort was made to raise the standard of admission so that our college course might be substantially on a level with that of the English universities. To-day we may say that the average of our graduates are quite as well educated as the average of the graduates of Cambridge and Oxford, and this is the result that has been accomplished by this movement to raise the standard of admission. But this movement has separated the colleges from the common schools of the country and developed into more prominence the preparatory school as a sundering wedge. The disadvantage of this arrangement is apparent. The preparatory school has a narrow special province, and instead of stimulating the common school it reacts against it by seeking to supplant it altogether so far as concerns the elementary instruction of the classes who are to obtain a higher education. Its tendency is to secure its pupils before they have finished their primary work and retain them until prepared for college. The common school, therefore, has been thrust out by this process, and its managers have been made in some cases to feel that they were educating only the castes not intended for higher eduation. This has produced also some feeling of antagonism against higher education. Mr. Carnegie can publish a book discussing the position of the graduates in the world of business. He suggests that the value of a college education is a problematical affair in the practical world. With the growing of the function of popular instruction through the newspapers and magazines there has developed the peculiar being—the self-educated man so-called—who is often very superficial and very fragmentary in his knowledge. He is apt to distrust whatever has real educational value. He knows little of the significance of historic evolution and does not believe in disciplinary studies. Doubtless if a man gets to be educated at all he is and must be self-educated, for intellectual learning comes only of self-activity. It is the man who explores, without guidance from those who have already mastered human learning, that goes astray in his studies and develops into a Philistine.

In this recent epoch of isolation of higher education Philistinism has come more and more to the front in the management of public affairs. The college faculties have not had their due weight in forming public opinion, large though their influence must be under any and all conditions. The editors of the daily newspapers and of the magazines have been more potent than the directors of colleges. We know that this is unsafe. The institutions for higher education should stand in close relation to all that is below them. And in an age of perpetual schooling through the public press and the library, the moment is opportune for the college to take in hand the work of extending its influence by those agencies which are collectively called "University Extension." The college has always insisted on a rounded course of disciplinary studies that first acquaint the pupil as it were with the geography of the provinces of human learning, so that he may not lose out of view the whole by reason of the attractiveness of some special part. This general survey is essential in all cases, in order to understand the

correlation or mutual dependence of studies, and without this knowledge no specialization is safe.

Formerly our colleges confined their work almost exclusively to this disciplinary course. But with the addition of two years' work to the requirements for admission to college it has become possible to close the disciplinary course with the first two years and devote the last two to the work of specialization. Specialization is the work of the university proper. It employs the method of investigation by the aid of such instrumentalities as the library and the laboratory. The student learns to make use of his learning and to discover his own special aptitudes.

The narrow lines of theology, medicine and law that existed in the university as the only specialties, and which were pursued only by those intending to enter one of the three professions, are by the new spirit of specialization broadened out so that the university work now covers the entire intellectual production of the people. The students who are pursuing special lines of investigation can be utilized by the colleges to work directly on the masses. The investigations undertaken by the University professors, through their classes, into local history, into modes of living, amount of productions, distribution of profits, readjustment of vocations, demand and supply of intellectual food, wants and aspirations, popular social fallacies—investigations into questions like these undertaken by students of the junior and senior classes as well as by post-graduates will furnish the accurate data needed for all kinds of organized movement for the elevation of the people. The former tendency of the college course, exclusively disciplinary in its character, was to neglect and discourage special aptitudes and to insist on the students' all-sided culture—the cultivation of his weak and rudimental powers and the neglect of his native endowments of strength. But with the predominance of the university spirit the teachers even in our preparatory schools are coming to take notice of the special aptitudes and inborn talents and to nourish these with tender care, although they insist on a thorough mastery of the lines of culture study.

We can foresee the time when the universities will have an inventory of the capacities and accomplishments of youth and adults in the outside community, and will direct and control a vast educational process among the people, conducted not only along the lines of science and literature, but in special fields of art and practice as well as in conduct of life.

Remarks by William Houston, M.A.:

Mr. President, there is not much that I can say by way of explanation of the movement of university extension.

We have had for many years, in connection with the University of Toronto, a system of local examinations similar to those of Oxford and Cambridge, and it seems to me that this is the best way to prepare for university extension. When once you accustom the people to look up to the university as giving valuable recognition by means of examination for work done in the way of reading, then it becomes easy to get people to look up to the university for teaching. I would like to supplement the paper just read by the

definition of "University Extension" which I heard Mr. Moulton give in Philadelphia. He called it "university education for the whole nation on itinerant lines." University extension teaching is just the same kind of education in England as is given in Oxford and Cambridge. The opportunities are to be brought before everybody, and each one can avail himself according to his capacity. It must be on itinerant lines—certain persons perambulating the country like the old circuit riders, bringing this intellectual opportunity within the reach of every man.

This is the conception of the matter that Mr. Moulton presented to us down in Philadelphia.

I have nothing more to contribute to this subject, Mr. President, and I am glad to have had the opportunity of meeting this audience.

President Adams:

Mr. Chairman, there is one matter that is in the way or one difficulty that must beset us in attempting to do what has been so successfully done in England. At the Universities of Oxford and Cambridge they have the advantage of the large body of fellows who can be called upon to do the work. I know how generally these centres have availed themselves of this body of fellows for doing that work. Not long since I met with a gentleman who was a fellow and later a master of one of the schools over there, and who has recently come to this country to connect himself with one of the universities. In speaking of the ease with which this work is done in England, he laid special stress upon this fact. Now, when the universities are compelled to send out lecturers in this way, it is somewhat embarrassing, because our professor has his work and cannot be absent for any length of time. That is one element which I think ought to be considered. It is an element that presents some difficulties. Whether these are insuperable is a matter that may be considered, but I think we shall find that if we undertake in our States, New York, Pennsylvania or New Jersey, to do what is done in England, we shall find our teaching forces gradually crippled by the demands that are made upon it.

There are some other points upon which I should be glad to speak if there were time, but I will not take the time.

Secretary Melvil Dewey, University of the State of New York:

Mr. President, it seems to me that the point that President Adams has advanced largely fails because of the great diminution in the number of fellows at Oxford and Cambridge, and specially in the amount paid them by the universities.

There is a thought or two that I wish to throw out and which I think should come before this body. This movement in reaching in a single year 40,000 people, scattered all over England, is working a complete revolution. Of this competent English observers tell me there is no doubt. It is simply inspiring to go there and see how the work is going on and to listen to the lect-

ures given before the University Extension classes. I remember one evening last fall the profound impression made when I dropped in to a lecture on chemistry in the Whitechapel district, in the very centre made notorious by the exploits of "Jack the Ripper," and saw the room filled with an audience all attention as they were taught by a professor from a famous English school. He had his regular classes, but was able in the evening to do this work without difficulty. In the same way in our own colleges, even where the professors have heavy work, their lectures being already prepared for college use, would it be so serious and difficult, as President Adams fears, to go out once or twice a week and give an evening lecture?

There is a grave danger before us because of the very magnitude and success of this University Extension movement, which marks a distinct epoch in higher education. As is inevitable when anything meets with unusual favor, there is a large class anxious to take up the idea, and, in colloquial language, to jump on and ride; so we have already in a dozen places in this country work going on or advertised as "university extension." In Philadelphia the University people have it in hand, and it is a credit and is bound to be a success; but in numerous other cases the work is either a few spasmodic lectures by college professors, or often much worse than that, a simple application of the popular name university extension to some old course of lectures without the addition of those features which have given university extension its great success. In short, there is no university to extend, and some of these courses should be called not university extension but "third-rate academy extension," or, in one case that I recall, the extension of a mere educational adventurer.

Our only safety is in guiding and controlling this movement from the old-established universities, and to remember that the lecture is by no means the most important part of the work, which is the weekly class and the paper work or exercises done at home, not as a test of memory, but with reference books and plenty of time to show the student's grasp of the subject. If the universities do not take this work in hand, as the public have a right to demand that they shall, it will fall into the hands of people who will bring discredit upon the whole movement, and perhaps delay for a generation the enormous advantages that will result to our country by utilizing the principles and methods of university extension, which have been proved so practical and valuable in England.

What we need is not more colleges, but better ones, and to extend their work not by founding new and weak institutions, but by making each present strong university a centre, with outlying people's colleges (by which I mean libraries with university extension classes), which shall be to the central university what the mission station is to the strong church.

I should like three hours instead of three minutes to comment on this movement, which I am profoundly convinced is the most important educational matter of the century. I can but believe that every strong college or university would wish to join in carrying on this work if it should give time enough to its study to understand thoroughly what it has already done, and the even greater things that it is clearly possible to do along these lines.

Professor Francis H. Stoddard:

Mr. Chairman, in one respect the conditions in this country differ from those in England. I was in a position to observe the work in England, and it has been carried out there as an extension of education from the male sex to the female sex. At the summer meeting something over 12,000 were present, and about nine-tenths of the number were women.

It is quite possible that the same demand as exists in England for university work from men to women does not exist in this country for the reason that the opportunities extended to women in this country through high schools, academies, colleges and universities vastly exceed those offered to women in England.

Dr. Magill, Ex-President of Swarthmore College:

Mr. Chairman, I would like to say a word in regard to the difficulty stated by President Adams. The professor's programme should be so arranged that he can give a portion of his time to this outside work, and the college could well afford to pay for such outside work because the professor would do better work, as stated by Dr. Pepper; he would develop his own ability by coming in contact with different persons, and by being surrounded by different circumstances and influences.

President James C. Welling then presented the following paper on

PROBLEMS IN HIGHER EDUCATION.

From motives of brevity I have thrown this paper into the form of aphorisms—a mode of writing which Lord Bacon has commended because it promotes condensation of thought, clearness of expression and breadth of inquiry, while lending itself to easiness of criticism. If, at one or two points, I have departed from the strictness of the aphoristic method, it has been for purposes of illustration.

APHORISMS ON PROBLEMS IN HIGHER EDUCATION.

Aphorism 1. In an age abounding with problems—with problems in theology, in psychology, in biology, in sociology, in public economy—we might naturally expect that problems of great pith and purpose would come to the front in higher education, because all the problems of the age arise on the boundaries of science, where the higher education has already gone before to prepare the way for their genesis.

Aphorism 2. From this state of things it results that the higher education of every age must bear the burden of all problems in all branches of inquiry, and must bear peculiar burdens of its own, because it is specially set for the right solution of all outstanding problems at the earliest practicable moment.

Aphorism 3. The number and the variety, the multiplicity and the complexity of the problems which press for solution in any given age are the signs and symbols of its intellectual activity, and marking, as they do, new expansions of thought, they open fresh vistas of human progress by betraying the presence of new aspirations in the bosom of humanity.

Aphorism 4. The most despicable of all social states is that which has so co-ordinated its social and intellectual forces that the genesis of new problems is put in circumscription and confine, as, for instance, in old China, where the brain of the nation has been caught for long centuries in "the fixed and crystalline sphere" of a dead and formal classical culture. "A calamity far more terrible than any of the quick, inflammatory, destroying maladies to which all are liable," says Lord Macaulay, "is a tottering, drivelling, paralytic longevity, the immortality of the Struldbrugs," in a word, the civilization of China. "The end of Chinese culture," says Sayce, "is fossilization." A "budding genius" going in at the age of one hundred and six to pass his final examination represents its bright consummate flower. China will have problems to solve so soon as the expanding forces of the Chinese intellect shall break the cast-iron shell of its Mandarin system, of which the *Hanlin Yuan*, or Imperial Academy, is to-day the apex.

Aphorism 5. It is the necessary incident of an expanding civilization, under the present co-ordination of our social and intellectual forces, that the organic forms of social and intellectual evolution should generate problems faster than the reflective reason is able to generate intelligence for their solution. Whether this infirmity be inherent, or whether it results from defects in our higher education, I do not here inquire, but that the fact is as I have stated, nobody will deny. "The needs of civilization, of communication and of culture," says Dalton, "call for more brains and mental stamina than the average of our race [the British race] possess." "We are in crying want," he adds, "of a greater fund of ability in all stations of life; for, neither the classes of statesmen, philosophers, artisans nor laborers are up to the modern complexity of their several professions."

Aphorism 6. Instead, however, of seeing in such facts, or in the infirmity which subtends them, a sign that the British race is "overweighted" with its problems, and is in danger, as Dalton says, of being "drudged into degeneracy," we should rather draw from them the useful inference that the British race, in the presence of the problems before it, is underweighted in its intelligence, and that these problems, so far from threatening to "drudge" it into "degeneracy," have come to quicken and strengthen that intelligence by laying a special burden of duty upon the educated classes of England; for if these problems are not solved by educated minds they will be solved by the slow and expensive process of an unintelligent natural selection working dimly and unconsciously in the drift of events.

Aphorism 7. The growing differentiation and specialization of knowledge in a thousand different walks, in the absence of effective schemes and expedients for an integral education, which shall be strong enough to hold in cohesion the existing sphere of human knowledge, are threatening the world with a new species of chaos and with a new confusion of tongues. The

minute division of labor has its revenges as well as its advantages, and both are equally obvious to-day as well in the intellectual domain as in the domain of economics. The higher education is specially called to guard against the atrophy and paralysis begotten by an intense specialism in culture and science.

Aphorism 8. The signs of this partial atrophy and paralysis are already upon us in the shape of executive powers cowed and daunted by the very opulence and superabundance of the cognitive powers, because the two faculties, the executive and the cognitive, have not been properly co-ordinated by our educational systems. In the comminution and segregation of knowledges, not only has the collective knowledge of the world become too vast and multifarious for any single brain to hold it, but vast masses of knowledge exist to-day in a shape which precludes them from even being potentially present in any living brain. This knowledge, says Leslie Stephen, "is externalized in countless books and papers laid up in accessible [or inaccessible] places," but so laid up that for long years it may be a *caput mortuum* for the minds best suited to profit by it. Where it does not enter into the brain cells of some living student it may even act as a clot to arrest the circulation of his intellectual life-blood. "No one nowadays," says Max Müller, "would dare to write the *Kosmos*, or Bopp's Comparative Grammar, or even Bunsen's 'Christianity and Mankind,' for fear of not knowing the exact depth at which the *protogenes Hæckelii* has lately been discovered, or the lengthening of a vowel in the Samhitapâtha of the Rig Veda." As I write, a German scholar lifts up his voice to emphasize the same warning. "Science," he says, "is losing itself in specializing. In belles-lettres there are no great individualities. Art, in spite of a number of good artists, lacks monumentality." Never was cognitive power so large. Never was high executive and organizing power in all intellectual walks so hesitating and so uncertain of itself.

Aphorism 9. As the human race does not grow in faculty or in intellectual calibre *pari passu* with the growth of accumulated knowledge, and as the historic tradition of knowledge can be perpetuated only be re-creating in each living generation the knowledge that has been gained by all the generations that have gone before it, it follows that the collective knowledge of the world must be in a perpetual state of unstable equilibrium. Colleges and universities, the representatives of the highest learning, the bearers of culture, are the natural custodians of this unstable equilibrium. They are to guard against the instability of the equilibrium. The equilibrium itself they are to confirm, strengthen and establish. These duties present to them their highest problems.

Aphorism 10. It follows, therefore, that problems of integration in the higher education must needs grow more and more difficult precisely in proportion to the necessity which calls for their solution. There is nothing exceptional in this. It is the law imposed on all forms of intellectual synthesis by the increasing purpose which runs through the ages.

Aphorism 11. In the meantime, there is much intellectual waste for the want of adequate integration in our higher education, because for the want of it vast masses of knowledge fail to be assimilated with the civilization of our epoch. The defect in our higher education is precisely the reverse of the

defect in China's higher education. She integrates too much and differentiates too little. We differentiate too much and integrate too little.

Aphorism 12. While civilization was in a comparatively statical state, the leaders of the higher education might safely trust to the forces of a natural selection for the constituents and the arrangement of the curriculum; but nowadays, as the world spins so rapidly down the grooves of change, the educational curriculum, at its highest summits, must needs grow more and more teleological, that is, it must be framed more and more with a scientific prevision and a rational selection of means to ends. For the want of such a rational teleology there may be much waste of intellect in the case of both teachers and scholars, especially in the higher walks of learning.

Aphorism 13. There is a vast waste of intellectual energy from what I may call discontinuities in our educational methods and agencies. There is much discontinuity between the public school and the college; between even the so called fitting school and the college; between the college and the university; between the college or university and the people at large, for whose highest welfare all educational institutions exist. Vast bodies of youth are checked in the pursuit of knowledge by these discontinuities, not because they have reached the terminus of their aspirations or of their necessities, but because they cannot jump across the chasms opened between certain lower and certain higher forms of education.

Aphorism 14. As there is much intellectual waste in local centres of the higher education, because there is not integration enough in our colleges and universities to ground *élite* students in "the fundamental knowledges," so there is much intellectual waste in the collective centres of our higher education, because there is not differentiation enough in our colleges and universities collectively considered. Our colleges and universities, collectively considered, would fulfil their highest purpose if they should furnish to the American people the parts and proportions of "Solomon's House," as sketched by Bacon in that marvellous apologue of collective and universal learning with which we are all familar in his New Atlantis—the ideal house established for the maintenance of a perpetual and world-wide commerce "in God's first creature, light, and in light bursting forth and growing in whatsoever region of the earth."

Aphorism 15. As the rate of intellectual development becomes slower and slower with the advance of civilization, and as this retardation of the rate is not only functional—a function of the longer term required to plant the intellectual life of the individual in the intellectual life of the race—but tends to become organic in brain structure, it follows that there should be a constant improvement in methods of education, in the logical order of studies and in the teleological grouping of studies; because the rate of intellectual development in any given nation is a function not only of its civilized status, but *also* of its educational methods. "European children exhibit more thought at five," says Dr. Martin, "than Chinese children at twice that age." The tardier mental development is here entirely due to educational method, and not to the height of the intellectual evolution, a fact which imposes on high civilizations a doubly imperious duty in the matter of their pedagogics.

Aphorism 16. The art of education must be translated more and more into a science of education, to the end that the reflective reason may react on the science till it shall be purified of all error; and to the end that a purified science may react on the art of education till it shall be brought to perfection in all its processes and stages.

Aphorism 17. If it be objected that these aphorisms are merely a bundle of truisms tied up along with a bundle of idealities, I answer that the objection is not final. There is nothing more ideal than a truism, because it is an ideality realized and perfected in opinion. There is nothing more true than an ideality, if only the ideality be duly conceived and rightly projected, because it is a truism getting itself realized and perfected in opinion. The Sermon on the Mount remains to this day, and will remain for all time, a complete co-ordination of the world's moral forces, because it is a bundle of aphorisms, containing truisms so true that some of them sound like paradoxes, and idealities so ideal that some of them reach from the imperfection of man to the perfection of God.

Aphorism 18. If it be objected that some of the complaints uttered in certain of these aphorisms proceed from an undue pessimism, I must repel the charge. I believe our educational methods are better to-day than they have ever been before. It is only submitted that they may not be in all respects the best possible.

Aphorism 19. If, on the other hand, it be objected that some of the aspirations contained in certain of these aphorisms spring from an undue optimism, and are therefore futile by reason of their impracticability, I must deny the necessity of the inference, as I fall back on the educational maxim of the great Positivist, Auguste Comte—the maxim, as encouraging as it is true, that in proportion as the phenomena to be studied become more complex they are susceptible of more extended and more varied means of exploration. In no realm are the phenomena so complex as in the domain of education, for in it are comprised the complexities of all other realms; but for this very reason the phenomena of education are susceptible of the most extended, the most varied and, I may add, the most constant means of exploration in our search for the science and the philosophy of education.

The following paper on "The Idea and Scope of the Faculty of Philosophy," by Bishop John J. Keane, Rector of the Catholic University of America, was then read by Professor O'Gorman:

THE IDEA AND SCOPE OF A FACULTY OF PHILOSOPHY.

The few observations which I venture to submit have been suggested by the address of Prof. Monroe Smith, contained in the report of the last Convention of the College Association of the Middle States and Maryland.

It is not surprising that his remarks on "The Philosophical Faculty in the United States" should have called forth adverse as well as favorable criticism. It deals with the central question in the great problem of the right distribution of a system of studies. Such a question is not only of vital

importance, awaking the keenest interest of all educators, but, owing to its position, it will naturally evoke differences of opinion in those who view it from different standpoints in the field of learning. It is, therefore, with fullest deference for the views of others that the present reflections are offered. I may be permitted to remark that they are the result of a somewhat careful study of the question, as it concerns the very next step which we have to take in the development of our nascent university.

The problem before us is the judicious dismemberment of the faculty of arts. Until very recently that faculty comprised all branches of learning not belonging to Theology, Medicine and Law.

It claimed the whole of philosophy and, with it, nearly all the sciences, these being considered as parts of philosophy.

But the great development of the sciences in recent times rendered it manifestly unfit that they, or rather philosophy, under which they were classed, should remain simply a part of the time-honored faculty of arts. In the German universities, therefore, there was added to the four traditional faculties a separate faculty of philosophy, embracing philosophy proper, philology, history, art, the social, political and natural sciences and mathematics. Thus philosophy carried with it not only the sciences, but also those courses of general scholarship which, being of a superior or post-collegiate order, were scientific rather than literary in their methods.

Outside of Germany the matter has been differently viewed. France gave to the new faculty the title of Sciences and Letters, leaving philosophy to seek refuge in the department of letters. The truth is that in France philosophy is left mainly to the colleges as a preparation to the university; and the teaching of it, more or less profound, that is given in the university is a subordinate section of the faculty of letters. With such a system, philosophy has no influence on the university group of studies, and the sciences have none on philosophy. Of late a reaction has set in, and we see the dawn of better things, inasmuch as the faculty of letters has been divided into three special sections—philosophy, philology and literature—each giving its special degrees.

English conservatism seems to have looked with disfavor on the new arrangement, and to have, as far as possible, ignored it. America has been mostly guided in the matter by England. And in consequence, doubtless, of this same slowness in yielding to what seems new, wherever in these countries degrees in philosophy have been given, the courses of study have been, till within a few years, sadly inadequate, and degrees in philosophy have been usually regarded as inferior to those in arts. But it may well be doubted whether this is regarded by the learned world at large as creditable to England and America. And, in the nature of things, it cannot last long. The recognition given by Germany to philosophy and the sciences is logical, and it must prevail.

Nor can the process of differentiation stop here. The Germans were unquestionably right, as compared with the French, in placing philosophy above the physical and natural sciences, and ranking them under its leadership. For man, the proper object of philosophy, is unquestionably above the

physical nature around him; and as man is a microcosm, a synthesis of all existing things, so philosophy may rightly be considered as the common sensorium of all knowledge and thought. Still philosophy and the sciences have grown to be too vast a field to be cultivated by one faculty, and so the demand for a further division is making itself felt. Already in Louvain and Tübingen the faculty of sciences is distinct from the faculty of philosophy and letters. And in some of the German universities the study of the political sciences has been so developed as to constitute a separate faculty, standing between those of philosophy and of law. It will probably not be long before history, also, will assert its claim to form a faculty by itself.

This tendency to further and further specialization is, on the whole, highly laudable. A judicious division of labor is the essential condition of perfect work. The specialist can alone be expected to be a master in his particular line of work or of study. It is not desirable that faculties should become unwieldy by comprising too many distinct departments, and especially those which greatly differ in their methods. Nor is it consistent that a degree should convey in its title little or no idea of the sort of knowledge for which it has been conferred. Just as it is generally recognized that the M.A. does not properly signify the kind of knowledge which deserves the Ph.D., so also it may be justly asserted that the Ph.D. is hardly the appropriate badge for a class of knowledge which, in itself, implies little, if any, acquaintance with metaphysics and ethics. Hence the recent demand for the doctorate and other degrees in science, and, therefore, for the faculty of science as distinguished from that of philosophy. The demand is logical and must be respected. Specialization and subdivision must more and more characterize our educational future.

But a note of warning has already been heard from many quarters. Specialization, while it makes knowledge more accurate within certain narrow limits, tends, by this very narrowness, to deprive knowledge of that breadth and roundness which are essential to true culture, to what may be termed humanness of intellect, and to justice of judgment. Intellectual development, when one-sided, is not only unlovely, but misleading and dangerous. Mr. Tyndall has acknowledged that exclusive occupation in certain lines of research often unfits a man for properly discerning matters belonging to a different field of knowledge.

Such a result is in every way undesirable. Knowledge ought, by all means, to be accurate, but it ought, above all, to be human and consistent with the nature of truth. Now truth, various as are its branches, is an organic unity. The faculties of the soul are different; yet they too meet in unity. All the departments of knowledge are similarly related, and ought, in a correct system of education, to meet in a centre of unity. That centre of unity is, as already said, philosophy. Even if we do not grant to philosophy all the breadth of Cicero's definition, "Sapientia autem est, ut a veteribus philosophis definitum est, rerum divinarum et humanarum, causarumque quibus hae res continentur scientia" (De Off. ll. c 1. 4), yet we must acknowledge that it is the central vantage-ground from which all the realms of knowledge can be surveyed, toward which all lines of thought converge, in which all

processes of reasoning find their principles, and from which alone can be had that perception of the relations and mutual dependence of things that is the necessary condition of symmetrical and judicious intellectual development.

If, then, a university aims at realizing the meaning and fulfilling the promises suggested by its very name, it must seek to have a faculty of philosophy, which will be both a starting point for all lines of professional or learned study, and a central meeting point in which adepts in every specialty of knowledge will come together to test and balance their convictions and to bring their intellectual moulding into symmetry.

Though it is to be expected that the tendency to make the physical and natural sciences a distinct faculty from philosophy will become general, yet the natural and immemorial kinship between the two should always keep them very closely related in their work.

Each greatly needs the aid supplied by the other. Philosophy needs to feel the influence of science, that it may not become vague and unreal. And delvers in science need the light of philosophy, that they may not become mere empiricists and materialists, oblivious of the higher truths of reason. He who aspires to a degree in philosophy should have careful training in the sciences kindred; and his examinations, while showing mastery of philosophy, which is his specialty, must also prove sufficient acquaintance with all associated questions of science. He, on the other hand, who aims at a degree in the sciences, while bound to show excellence in his scientific specialties, should be fitted to prove himself sufficiently versed in the departments of philosophy connected therewith. A judicious arrangement of courses alternating between the two faculties seems to be quite practicable, and to be, in the nature of things, essential to sound learning. For, the metaphysician and psychologist need deep and serious knowledge in such sciences as physics, chemistry, biology and philology. To-day the physical sciences have pushed forward their boundaries very close to the field of metaphysics. It is not allowable, it is dangerous, to ignore this situation; for the points where philosophy and physical science come into contact and seem to clash are the very points where conciliation and mutual strengthening must be made.

But this demands that each should know something of the other. The same must, with due proportion, be said of the faculties of medicine and law. It is obviously detrimental to a system of studies that they should be permitted to be quite separate schools, practically independent of each other and of the university. That they need to stand closely related to each other is very evident, medical jurisprudence constituting a wide field which they share in common. But it is no less manifest that they ought to stand in close organic union with the university at large, and with the faculty of philosophy in particular. On no other condition can they be kept worthy of their rank among the learned professions, and hindered from degenerating into mere technical schools. And on no other condition can the physician or the lawyer meet the strict requirements of his profession, or satisfy the just expectations of the public. No man can conscientiously undertake to treat the ailments of the human system who has not carefully studied man's organism in both its normal and its abnormal states; and no one can truthfully claim to

have so done who has not studied its psychological nature and conditions. In like manner, no man can reasonably expect the confidence of an enlightened public in his treatment of legal questions whose knowledge does not extend far beyond the mere technical machinery of a code. Historical, social, constitutional and political studies are the natural foundation of all legal science worthy of the name, and ethics are the indispensable basis and criterion of it all. The time is fast coming to an end when the American public could be content with mere practitioners in either law or medicine. It is expected, and it is coming to be demanded, that they should be truly scholars, learned in their profession and in all that it implies; and this can be accomplished only through the influence of true university studies, meeting and finding their centre of unity in the faculty of philosophy.

This holds equally concerning the relations which should exist between the faculties of philosophy and of divinity. A clergyman needs to be the most broad-minded and broad-hearted of men—not, indeed, with that broadness of mind which calls all things equally true when some are evidently false, nor with that broadness of heart which calls all things equally right when some are evidently wrong—but with that just breadth of mind and heart which recognizes and honors the good and the true and the good wherever they may be found. And in no other way can he reasonably hope to attain to such mental justness and nobleness, save by uniting with his courses of Divinity deep studies of philosophy in its broadest comprehension. Thus, too, will he be fitted to treat intelligently and acceptably of those great questions in which the lights of reason and of science blend with that of Revelation.

On the other hand, philosophy must remember that its fundamental problems are identical with those of religion. And since, by its study of the history of philosophic thought upon these great problems, by its recognition of the need and the possibility of a Divine Revelation concerning them, by its examination of the evidence for the fact of such a Revelation, it is led to the discovery of a great superadded light, meant to aid reason in its attempt to answer these weightiest of human problems, it is evident that philosophy cannot reasonably or safely ignore the proffered light, whose necessity the philosophizing of all the ages abundantly demonstrates.

Thus a properly constituted faculty of philosophy is manifestly the centre of unity of a well-organized university. In it all the branches of human knowledge are harmonized, students are intellectually balanced and rounded for all the professions, and learned men are sent forth juster and truer in their views, less apt to be narrow and warped and false, misled themselves and misleading others.

It is also, in conjunction with the sciences, the great field of research in which the limits of human knowledge are on all sides widened out. Thus we learn more about nature, to satisfy our legitimate curiosity, to apply her alchemy to the uses and conveniences of life, and to yoke her forces to the chariot of human progress. We learn more about man, about the nature of the individual and about the history of the race, that our estimates of human rights and duties and our adjustments of human relations may be truer and

more salutary. Thus, too, we learn more about God, finding fresh traces of His power and His wisdom and His love in all things. It is eminently reasonable thus to see the Creator through His works, "to look through nature up to nature's God." Knowledge thus reaches its highest aim; in contact with Him reason is ennobled; in the light of His face all things are made plainer, and there remains no need that the delving mind should be lost in darksome labyrinths.

From all this it seems to me quite evident that the natural means for securing in a university organic unity, and for leading its work to the best results, are the wise arrangement and the judicious influence of the faculty of philosophy.

President T. L. Seip, of Muhlenberg College, presented the following paper on

THE TAXATION OF COLLEGE PROPERTY.

The taxation of college property by the State is a subject which has demanded the attention of the authorities of a number of the colleges represented in this Association, especially those of the State of Pennsylvania. In fact, the formal organization of "The College Association of Pennsylvania," which, by a change of its constitution, July 6, 1887, became "The College Association of the Middle States and Maryland," originated in a meeting of the authorities of a number of the colleges of the State, at Harrisburg, to consider this very subject and to secure more liberal action from the Legislature, relieving the colleges of the State of the burdens of taxation, which, in some of the counties, the Commissioners believe it their right and duty to impose.

It is not our purpose, however, in this paper, to discuss the laws of the State of Pennsylvania or of the other States bearing on this subject, but to direct the attention of this Association to a brief consideration of this question —*Is it right for the State to tax the funds and property of the colleges within its bounds, in view of the important services which they render to the public?*

If the perpetuity of our free institutions depends upon the intelligence and virtue of our citizens, then it is the duty of the State to secure its own preservation by providing such educational facilities as are adapted to make its future citizens intelligent and virtuous. This, we think, is now generally admitted. As far as the State has done this, in its system of public schools, so far it has discharged its duty. But where it fails to foster higher education, it has come short of its full duty, because the efficiency of the lower grades must always be conditioned to a greater or less extent upon the character of the higher institutions of learning in the State. These, in a large measure, set the standard and furnish the leaders of thought and action in educational matters. If their standard is high, their influence on the entire educational work of the State will be most salutary and elevating. If they are burdened by State and local taxation, they will be disabled to that extent, and the whole system of education in the State be rendered less efficient.

The U. S. Commissioner of Education (Dawson) in his report of 1887–88, page 58, where he speaks of the researches of Mr. Blackmar, as given in his monograph, on "Federal and State Aid to Higher Education in the United States," says: "One of the strongest inferences that may be drawn from this investigation is that in nearly every instance the foremost desire of the people has been for colleges and universities rather than for schools of a lower grade. It was the opinion of the colonists and of the later settlers of the West and South that primary and secondary schools were essentially dependent for their existence upon higher institutions. This principle is borne out by the facts, for then, as now, wherever the best colleges and universities are there will be found the best grade of primary and secondary schools. It is not uncommon to hear persons speak of common schools and the university as if they were entirely disconnected, and what concerns one did not the other. Our fathers meant by a 'common' or 'free' school, one that was open to all persons on equal terms, and not necessarily a school of low grade. The meanings of the terms have changed, but it would be well to return to their primitive signification and consider all schools, colleges and universities, high schools, secondary and primary, whether State or non-State, as schools of the people; and to consider further that what affects one class affects all, and that to build up and strengthen learning is the safest plan for insuring the perpetuity of primary and secondary schools." Whatever importance we may attach to this opinion of the Commissioner, it is nevertheless true that the States which furnish no State universities fail to derive the beneficial influence of the higher education upon the lower, excepting as far as the colleges supported by the churches and by the private beneficence in the same State, or the colleges and universities of the rest of the country, may supply this deficiency by setting a proper standard and furnishing officers and superintendents of instruction and teachers and principals for their normal and high schools. The number of colleges in the country supported by private beneficence, and the institutions of higher learning, founded and sustained by the different communions of the Christian church, are comparatively very large, and their individual and collective educational influence on the public schools of the country and on the masses of our people is beyond computation. In the aggregate they accomplish an educational work which it would cost the States millions of dollars to perform, although we should not deign to estimate the value of their work by dollars and cents, if it were not a question of money on the part of the State in taxing these institutions.

Aside from the saving of money to the State, which is effected by these institutions educating many thousands of the youth of the land who would otherwise have to be educated by the State or go without such education, who can compute the value to State and country of the higher education and especially of the ethical and religious training of so many choice youth? To realize more vividly the immensity and importance of their work we need but consider for a moment the loss which the country would suffer if all these institutions, with their multitudinous educational facilities, and their moral and religious influences, were suddenly wiped out of existence, we had almost said —taxed out of existence.

We desire to emphasize the importance to the State of the moral and religious training of the young in Christian institutions of learning, many of which instead of being fostered are now taxed, and thus hindered in their work by the State.

An education that regards the training of the intellectual only, to the exclusion of the moral and religious elements in man's nature, is one-sided and harmful to the best interests both of the individual and the State. True education looks to the development of the entire man—intellectual, spiritual and physical. Men educated in harmony with this idea are needed by the State and nation everywhere.

Some of the foremost thinkers of the day, who love their country with an unselfish devotion and realize the danger to the perpetuity of our government, not only of illiteracy, but also of a Godless intellectuality, are at work on the problem how to preserve our public school system free from sectarian bias and control and yet provide sufficient moral and religious instruction to make good citizens of the masses. This is a difficult problem, but a solution must be found, or the nation will pay dearly for its neglect, sooner or later.

No one, at this late day, can successfully question the necessity of a public school system, nor do we believe that the public schools can be shown to be Godless, as has been asserted. For the multitude of Christian men and women who are teachers in every grade are the salt that preserves them from this imputation. But when all due weight is given to the personal example and influence of such teachers, the best friends of the public schools, among whom we wish to be counted, can not close their eyes to the fact that somehow there is a lack of provision on the part of the people for moral and religious instruction sufficient to make virtuous and good citizens of the masses. It is a lamentable fact that tens of thousands are in our public schools who receive no moral or religious training at home or anywhere outside the school to fit them to become virtuous citizens of a free government. Is it a wonder that crime is said to be on the increase in the educated classes of our people, and that good men are concerned for the future of our free institutions?

Public virtue is of more importance than even public intelligence, and this can not be secured by secular education alone. A sufficient amount of moral and religious instruction must be given to bring men up to the proper moral elevation. Otherwise it is impossible to train up the rising generations to become virtuous citizens. It therefore becomes the right and duty of the State to foster such training, either in the public schools or in some other way. This is a Christian land. We assume that no one will claim it to be either Pagan or Jewish. Therefore the great moral principles of the Christian religion should be fundamental in our systems of instruction for citizenship.

This involves no union of Church and State, and in no wise interferes with men's religious liberty, with the right of private judgment in matters of religion and freedom of worship.

The State has nothing to do with the Church so far as purifying its teachings or propagating it as a means of salvation to men is concerned, but it has to do with religion and virtue for the sake of its own perpetuity and the

preservation of public freedom and order in its progress toward the accomplishment of its mission.

So high an authority as Judge Story, in his Exposition of the Constitution, p. 260, says: "The promulgation of the great doctrines of religion, the being and attributes and providences of one Almighty God, the responsibility to Him for all our actions founded upon moral accountability; a future state of rewards and punishments; the cultivation of all the personal, social and benevolent virtues; these never can be a matter of indifference to any well-ordered community. It is indeed difficult to conceive how any civilized society can exist without them. And, at all events, it is impossible for those who believe in the truths of Christianity as a divine revelation to doubt that it is the special duty of Government to foster and encourage it among all the citizens and subjects. This is a point wholly distinct from that of the right of private judgment in matters of religion and of the freedom of public worship according to the dictates of one's conscience."

But it may be asked, What has this to do with the taxation of colleges by the State? Much in every way. The church college and institutions supported by private beneficence are those taxed by the State. As if the burdens that are voluntarily borne by the benevolent in founding and sustaining these institutions for the education of large numbers of our citizens (not only in secular matters, but also in virtue and religion, thousands of whose graduates are officers and teachers in our State schools) were not enough, the State, in some places, lays upon these benefactors the additional burden of paying taxes on the very funds and property which their private benevolence has bestowed for the public good.

In other words, they are virtually taxed for the privilege of training up virtuous citizens. These institutions are not corporations for gain, but for the promotion of intelligence, morality and religion among our people. They accomplish a work for private and public morality by the ethical and religious instruction which they impart that filters down through all grades of our schools and permeates to a greater or less extent the entire body politic. We think we can rightfully claim that the Christian educational institutions in the country do more, directly and indirectly, for the training of virtuous citizens, and, therefore, for the preservation of the integrity of our republican form of government, than is accomplished by any other merely secular schools of the State. Is it right for the State to tax institutions that are doing such a service to the State? We think not. Some of these colleges that have been chartered by the State have been compelled to pay school taxes on their college property for the support of the public schools in the district in which they are located.

Is it right to tax one part of our educational machinery, and that too an essential part, for the support of another—to rob Peter to pay Paul? We think not. While we would hesitate to ask for State aid for church colleges and institutions sustained by private beneficence, inasmuch as that would imply State supervision, we think it a matter of simple right and justice, in view of the service rendered to the public, that they should not be subject to taxation.

In conclusion, to recapitulate, we maintain:

(1) That it is the duty of the State to foster higher education for the sake of the lower.

(2) That the importance to multitudes of the citizens of the State of the purely educational work of non-State colleges justifies them in claiming exemption from taxation.

(3) That Christian institutions do a work for public and private morality, and, therefore, for the preservation of the State, that is not done in purely secular institutions, and, consequently, they should be exempt from taxation.

President George Edward Reed, of Dickinson College, presented the following paper on

THE PLACE OF THE ENGLISH BIBLE IN THE COLLEGE CURRICULUM.

Purposing a brief paper on the Place of the English Bible in the Curriculum of the Colleges and Universities of America, permit us, in the first place, to call attention to the somewhat discreditable fact that in but few of these colleges and universities is there any adequate provision for the intelligent and faithful study of a book, believed, by Christians at least, to contain the Word of God to man—Yale, Haverford, Bryn Mawr and Dickinson being, so far as we are informed, the only institutions in which, at the present time, adequate facilities, in the way of distinct department work are afforded for the prosecution of studies in this important field.

To this list, Princeton should, perhaps, be added, provision having been recently made, as we understand, for the establishment of a "chair" of this description, with probability that soon a man will be found competent for the delicate and somewhat original line of work proposed by those having the matter in charge. Beyond these, we know of no college or university in whose curriculum any provision is made for the study of a book believed by millions to constitute the fountain-source of much of the progress and civilization of the human race.

If, in the next place, we turn to the curriculum of our theological seminaries, we discover a similar want.

True, in all of these is that generous provision for the study of the Scriptures in the languages in which they were originally written, but, as all know, largely for training in linguistic and exegetical lines, or for the building up of systems of theology within them for the purposes of pure Biblical science.

Of the study of the English Bible, considered as a literary or historical monument, or as a great world-book of religion, that is, generally speaking, well-nigh utter neglect.

In fact, our so-called Christian institutions of learning seem to be Christian only in that largely they are maintained under the auspices of Christian churches, under the instruction, generally speaking, of men of Christian theories and practices, and pervaded, to some extent at least, by Christian spirit.

Undoubtedly, through college chapel exercises, college-preaching services, college prayer-meetings and college Young Men's Christian Associations, together with tolerably extensive instruction in the field of Christian apologetics, an influence, more or less powerful, is exerted in favor of the Bible, and of the general principles of the Christian faith; but the fact, nevertheless, remains, that but for those agencies many of our institutions would continue to be Christian only in name.

The Bible, considered either as literature or as history, having no place in the authorized courses of study, the results are as might be expected.

Quoting the words of the Reverend T. T. Munger, in an article on "The University and the Bible," in *The Century* for September, 1888, "The student comes to college with a conception of the Bible such as no longer is held in the university—a crude, unscientific, antiquated belief which he has been taught to identify with the Christian religion. He undergoes education; his faculties are strengthened, his perceptions broadened; he is taught to analyze, and compare, and question, and to think for himself; he becomes acutely perceptive of what is in the intellectual and religious air; he is, above everything else, taught to be rational. This very process leads him to relax his hold upon what he had been taught to consider fundamental, with the inevitable tendency to give up the whole Bible. His religious training says one thing, his education says another; caught between these two seas, he is liable to make shipwreck of his faith or to stick fast in the shallows of indifference."

To this shipwrecking process so graphically described by Dr. Munger, is to be attributed, largely, the painful lack of interest, increasing noticeably as the student advances in his course, in the religious meetings of the college, ending, ordinarily, in profound indifferentism with respect to all matters distinctively religious.

Others, and these perhaps the majority, perplexed with questionings upon which the studies of the curriculum throw no light, and concerning which no strong, authoritative view is lifted up, sit down to await better opportunities for investigation than college life affords, with little likelihood of ever finding them in later years.

This being the case, there would seem to be an abundant reason for the introduction, in the courses of our colleges and universities, of facilities for the scholarly and scientific study of the English Bible. That this may the more fully appear, permit us, out of many reasons which might justly be adduced, to urge the following:

1. Because, without instruction of the kind described, our young men will continue to go forth from our so-called Christian colleges totally unprepared to meet the assaults of forms of scepticism, or as Agnostics, or as Indifferentists with respect to matters of religious faith.

2. Because of the history which the Bible contains. All will admit that the history comprised within the Old and New Testaments covers not only a history of the Jews from the foundation of their race, under Abraham *circa* B. C. 2250 to the fall of Jerusalem in A. D. 70, but also that that history touches upon the story of every great world-history from earliest Babylonia

and Egypt to latest Rome. More, the careful student will admit that the history of other peoples than the Jews, as set forth in the Scriptures, is sometimes of immense importance, as, for instance, the remarkable chart of early race movements given us in the tenth chapter of Genesis, the like of which is found nowhere else; also references to the Phœnicians in the Old Testament, particularly in Kings and Ezekiel, which, in well-nigh total absence of other sources of information, afford us nearly all that we have of the remains of that great people.

Suffice it to say, that for the study of the history of the great nations of the remote past, the Bible, so much neglected in our colleges, to day confessedly stands forth as the best and most trustworthy of guides.

3. It should have place because of the exalted character of the literature which it contains—a literature, considered with respect to quality rather than quantity, unsurpassed perhaps by any the world has known, not excepting the stately literature of Greece, of Rome, of France, of Germany, of England, or of any other nation of which we have knowledge. Homer, Xenophon, Herodotus, Thucydides, Demosthenes, Cicero, Horace, Virgil, Juvenal and Livy, surely, are worthy of study. So, on the other hand, are Moses, Samuel, David, Isaiah, Ezekiel, Daniel, Jeremiah, Matthew, Peter, James, John and Paul. Surely of these last, no less than of the former, no educated man of the nineteenth century can afford to be ignorant. Yet among students the ignorance exists and will continue unless the fault of which we speak shall be remedied.

4. Because the Bible contains the history of a religion challenging comparison with any other, while at the same time claiming fitness coupled with dynamic power for world-wide extension. In recent years there has grown up a new science, the science of comparative religion. This science, as in the case with every other, can only make progress toward broad generalization through the collection and classifying of facts. Of these facts, great masses relating both to the religious history of Israel and to the religious history of many other great peoples are to be found only in the Bible, and ought, therefore, not only to be made accessible to our students, but also scientifically set forth. Turning now from the consideration of a few of the reasons for the introduction of the study of the Bible in the college curriculum, let us, in conclusion, give brief attention to the character and scope of the instruction to be given in this new and important field.

1. Let it be borne in mind that the instruction proposed is distinctively Biblical rather than theological. It does not propose either the construction or criticism of a system of doctrine. Neither is its field identical with that of Christian evidence, for the study of which all colleges make more or less provision. The aim, rather, is to proceed with scholarly precision along the lines of modern historical and philological investigation; to present in a thoroughly scientific manner the fruits of the latest and most archæological discoveries in their bearings upon the Biblical records; in short, to test Biblical history precisely as you would test any other history, and this by going directly to original sources, both monumental and literary, for the information desired, meeting with honesty and candor the difficulties con-

stantly arising in inquiring minds, while at the same time furnishing such guidance as to methods and bibliography as will make later study both easy and profitable.

Who can doubt that from such scientific and critical study of the Word of God in our colleges, there would result not only a broader and profounder knowledge of the great facts of the Bible, but also a broader and more fervent faith in its mission?

Work of this description, however, demands qualifications not easily found in one not specifically trained for its accomplishment. To be successful here, to meet the requirements of the situation, he should be a man familiar not only with Hebrew and Greek, but also with those other Oriental languages through the knowledge of which alone will it be possible for him to handle the rich archæological materials which the long-buried monuments of Egypt, of Palestine, of Babylon, of Nineveh, now so abundantly afford.

2. He must be a man with broad, comprehensive grasp of the history of Oriental peoples and religions, while at the same time full of devout Christian sentiment and evangelical experience. If requirements such as these be deemed somewhat high, higher indeed than that demanded in many other lines of work, our answer is that the requirements of an instructor in a field so important as this should be so high that students will be able to rely with unlimited confidence upon their belief in the extent or thoroughness of the scientific attainments of the man whom they must regard as being in some sense their spiritual guide. Not simply pious men, not "goody-goody" men, not successful ministers, not even critical exegetes are demanded, but rather men of widest linguistic power, of archæological acumen, of rarest philological ability, of profoundly philosophic spirit.

Only through such means as these, in this age of questioning and speculation, will earnest, thoughtful, young men be held to the old foundations, or be trained for the defence of the faith, for the maintenance and propagation of which the majority of the colleges and universities of the country were founded and endowed.

Professor J. G. Schurman, of Cornell University, presented the following paper on

THE IDEAL COLLEGE EDUCATION.

It is not as easy to-day as it was a few years ago to explain what is meant by a college. The term could then have been illustrated by reference to a well-known class of existing institutions. But these institutions have since suffered changes so considerable that the original type has been almost effaced, and so diverse that one may well doubt whether any new species can be framed elastic enough to embrace the leading individual characteristics. In a few cases the college has been transformed into the university; but in most cases it is still in travail with an issue no man can foresee. Yet the parental longings are for something different from the ancestral type; and I think we shall make no great error in assuming that a university is the ultimate goal of desire.

What, then, is a university? In its broadest sense, it is a focus of human civilization, whose rays it gathers up, intensifies and freely reflects. It is the organized home of all the arts and sciences, of literature and philosophy, of the entire spiritual possessions of mankind. But as these treasures can be preserved only in and through mind, it lies in the very idea of them that they should be communicated from generation to generation. It is, therefore, the function of the university to teach. But the university is still more than the treasury and the dispensary of human knowledge. It is the nursery in which knowledge is cultivated, the forcing-house in which its growth is systematically hastened, the laboratory in which it is carefully tested, the workshop in which it is repaired and remoulded. The university is set for the defence, but also for the increase, of knowledge. And it serves its dual end, as well as meets the individual's demand for higher training, by communicating what is known, while at the same time pushing investigations and research into that unexplored domain which, like a limitless ocean, challenges on all sides the petty kingdom of our knowledge. For this reason the university is the proper domicile of the specialist. And we are coming to think of it as a collection of special schools, that is to say, of departments, like law, medicine, theology and engineering, in which an elementary training is given in the requirements for *special* professions, or of departments like physics, philosophy, history and biology, in which the student pursues highly *specialized* and advanced work, which in many cases is also a requirement for a profession. The "note" of the University, to adopt Newman's favorite term, is specialization. Of this specialization the German universities supply us with admirable examples. I do not say they are perfect, or even as perfect as they might be; for I am democratic enough to think they are somewhat narrow in keeping technical instruction from a curriculum that has always included law and medicine. My own opinion is that the ideal university should aim at breadth of range as well as intensity of operation. For it there is nothing common or unclean in the whole realm of the knowable. Let us say, then, that comprehensiveness and specialization are the fundamental notes of a university.

The students of the university are prepared to enter into the professions of law, medicine, theology, teaching, engineering, farming, or any other of the vocations for which their studies in the humanities, arts, or sciences constitute a preparation. Each graduate has been specially fitted for a definite work in life. This justifies us in designating the instruction received at the university professional education. It is true that in the present condition of our universities they also aim to produce liberal culture. But they are confessedly in a transitional state. And I find it impossible to describe their proper function—a function which they really discharge in Germany—without considering them as primarily devoted to the fostering of those uncommon studies by which men are fitted for the moral intellectual vocations of society. The university is the most highly differentiated organ of the spiritual life of mankind; and its function in the body politic is like that of the brain in the economy of animal life. It secures insight, direction and control to supplement the more or less automatic activities of the lower organs.

This delimitation of the scope and aims of the university, though it may run counter to existing facts and names in America, accords, I believe, with the latent thought and ideal of every reflecting educator. At any rate, it has brought out the contrast between professional and non-professional, or (as it is more generally called) liberal education. And if it be admitted that specialism and professionalism are the ends of university teaching, the culture of man as man must be the object of the ideal college education. So far all is clear. But when we proceed to inquire how that culture shall be produced, or wherein this education shall consist, we find a variety of views which, though perhaps partly, is yet not altogether due to the standing confusion between professional and liberal education.

It would conduce to clearness upon this subject, if the end of a college education could be formulated with the same definiteness as the end of a legal, medical or other technical education. To say that it is the culture of man as man may be true enough, but the statement is not free from vagueness. A common mode of escaping the difficulty is to put it behind the pictures of a mythological psychology. The mind, it is said, is a bundle of faculties; and the training of these faculties is the object of a liberal education. In the language of common life, education sharpens our wits. The picture is graphic. And who would not be convinced by a vision of the professor as grinder, Homer as grindstone, and the freshman as dull-edged blade? Unfortunately for this pictorial explanation, modern psychology forbids our speaking of mental faculties, much less founding upon them a theory of education. If we must have a picture of our conscious life, it seems less to resemble a storehouse of powers, latent and active, than a continuous stream of variegated appearances which we call thoughts and feelings, or, in more technical language, psychoses. And from this point of view a liberal education ought to signify an enrichment of the actual contents of our mental life.

But this view of liberal education as a sharpening of faculties can be shown inadequate even from its own psychological standpoint. Is the faculty to be whetted observation? Then, for its cultivation, give me, not the student "with blinded eyesight poring over miserable books," but—the man-milliner. Or is it the power of correct reasoning you desire to foster? Apply yourself, then, not to the harmless manipulation of relations of abstract space and number, but to the living realities of business, in which the struggle for life and survival of the fittest will evoke all your originality in the framing of premises and all your insight and caution in making inferences from them. Or must the will be trained? Is the strength of resolution, or self-control, or decision of character the monopoly of the student? Rather must we not confess that the strong in will are more apt to be found in those vocations whose exercise is attended with risks and dangers? They are on the field of battle, in the hospital, on the captain's bridge, in the engine-room, on the exchange, in the counting-house, and, most of all, perhaps, in the council chamber, where rulers, who speculate in votes and men, play the high game of statecraft.

I conclude, then, that merely for the training of a boy's powers, a liberal education is not the most effective means nor is the college the proper arena.

Some other justification must be sought for requiring of youth protracted and arduous study which is not intended as a preparation for any profession, and which, in the great majority of cases, has no such indirect result. And to face this difficulty at once, I venture to assert that the only vindication of the outlay of energy, time and money devoted to college education is that knowledge is a good in itself. The attempt to justify it as useful for some ulterior end—as, for example, success in life—is not less preposterous than the defence of righteousness on the ground that it has the promise of the life to come. Virtue and knowledge approve themselves as Goods to the soul that has them. They have approved themselves as Goods to the countless generations that have labored in the moralization and civilization of mankind. And we only degrade them when, to stem that materialization of modern life which measures all worth in terms of money, we attempt to recommend them on other grounds than their own inherent excellence and adaptation to the noblest longings of the soul. It is true we may express our thought of their absolute worth in different language. We may paint the low, brutish and nasty condition of a vicious and ignorant race or individual. We may describe the ideally good man as a member of the kingdom of God, or the ideally educated man as a spectator of all time and all existence. Or we may define the particular kinds of excellence exhibited. The virtuous man is just, kind, truthful, temperate and courageous. The educated man, as compared with the uneducated, sees more, feels more, wants more, is interested in a vastly greater variety of objects, and, in short, leads a larger, fuller and richer life. He is touched by emotions, haunted by thoughts and moved by ideals which are incommunicable to minds that have not been nourished at the breasts of human science and culture. The masses of men live on stimuli that come from the here and the now. But education multiplies objects of interest throughout the limitless expanse of space and the ever-enduring course of time. It has been said that the object of education is to train men to think. It were truer to say it gives them something to think about. It is not in the activity of thinking (which seems to be evoked by all sorts of occasions), but by the abundance and excellence of material upon which thought operates, that the man of liberal education is the superior of his fellow-thinkers.

If this be a right conception of the end of a liberal education, it would seem to imply a mastery of all human knowledge. And, indeed, I should assert that this would be the goal of education if a man lived long enough, and had no other duties than self-culture. The counterfeit presentment of the race, such an intellectual leviathan could be satisfied with nothing less than the contents of all human intellects. His own Highest Good, on the mental side, would consist in assimilating and reacting upon that aggregate of knowledge which now exists in the *disjecta membra* of individual minds. Even an infinitesimal approach to this ideal suffices to lift men to the rank of the immortals. Endowed with reflection besides, such men turn out Aristotles and Hegels; endowed with feeling and imagination, they become Dantes and Goethes. But we are here dealing with the education of ordinary mortals who, at the age of nineteen or twenty, shall be ready for busi-

ness or the professional training of the university, which has been already described. And the question is, what, according to our conception of the end of a liberal education, should be the training of such youth during the four years just preceding—that is to say, between the age of fifteen and nineteen, or sixteen and twenty? I assume—and the experience of European countries proves—that at fifteen or sixteen a boy who has been properly trained can pass on the subjects (or the equivalents thereof) required for matriculation at Princeton, Cornell, or Yale; and my inquiry is into the kind of education he should receive during the next four years of his life, whatever is to be his vocation or profession.

When we consider the multiplicity and extent of human knowledge, the attempt to determine what is essential to a liberal culture looks altogether hopeless. Yet, however numerous our sciences, there are, in a last analysis, only three objects of knowledge. These are man, nature, and God. But theology and philosophy, which treat of God and his relation to man and nature, are too abstract and technical for the juvenile minds whose education we are here discussing, though, of course, their moral and religious training ought by no means to be neglected. Conduct being, as Mr. Arnold has said, three-fourths of life, no sane theory of a boy's education can afford to overlook it. But formal instruction in the principles of virtue and piety seems to have little influence upon practice; and it may well be doubted if the college can do more for a boy than surround him with the spiritual influences that emanate from its members. The whole subject is one of great practical difficulty. But it need not occupy us longer in this attempt to determine the constituents of a liberal education. Abstracting, then, from philosophy and theology, both theoretical and practical, the sole remaining objects of knowledge are man and the world external to him. If I may be allowed to designate *naturalistic* all the sciences that deal with nature in any of its aspects or divisions (including, therefore, chemistry, physics and geometry, as well as botany, physiology, geology and the rest), and if I may in the same way designate *humanistic* all the sciences that deal with the life, achievements and products of humanity, the problem of the essentials of a liberal education will consist in making a right selection of humanistic and of naturalistic studies. That this cannot be done by the boy who has yet to be trained in both is a self-evident conclusion, however counter to much of our current practice. That way madness lies—a madness none the less fatal that it is well-nigh universal.

If, then, *we* attempt the selection, thus giving the boy the benefit of the experience of his elders, we should, I suppose, all require both language and mathematics. We may call geometry, because it is a doctrine of space, a naturalistic science; but along with algebra, trigonometry, etc., it occupies a unique position in our knowledge. Pure mathematics, in short, is the universal form of the naturalistic sciences; its formulæ are the terms in which their laws must be expressed in order to satisfy completely the demands of the scientific intellect. The goal of every science of nature is to become applied mathematics. And this goal has actually been attained by physics, which is the basal science of nature. Accordingly, we may regard mathe-

matics as the portal of all scientific culture. And we must require our youth to master as much algebra, geometry and trigonometry as is required for subsequent courses in mechanics, heat, electricity, magnetism, acoustics and optics. To demand the mathematics and leave the physics optional would be much like building a house with the chance of its always remaining empty. It is true, there would be, in both cases, a certain activity, from which, no doubt, discipline would come; but in a world so full of actual problems, no one needs to invent occasions for the exercise of his powers. And, furthermore, whatever training comes from mathematical studies *per se*, arises from insight into the nature of demonstrative reasoning, whose value is apt to be overestimated both by those who live in it and by those who are ignorant of it. But this gain, I apprehend, whatever may be its value, can be secured in a very short time, and from the study of geometry alone. "Now I know what reasoning is," said Lincoln, on mastering the first book of Euclid; and it seems to me other boys have the same experience. If Plato allowed none ignorant of geometry to enter his academy, it must be remembered that the condition was easily satisfied. Altogether, then, I consider elementary mathematics an essential of a liberal education, not because, as is generally said, it is a good mental discipline, but because it is the indispensable condition of the study of the principal sciences of nature. By means of it we unlock the mysteries of the physical world, which is the one pole of our intellectual interest, as man himself is the other.

Somewhat the same prerogative rank must be assigned to language in the realm of humanistic studies. The use of speech, with all that speech implies, is what distinguishes man from the lower animals. And language is at once the instrument and the record of human thought. Whatever gives precision to our use of words gives precision to the thinking that goes on by means of the words. Ignorance of language entails obscurity of thought. But not only is the study of language conducive to exact thinking, it also enlarges the area over which our thoughts may range. For the knowledge of mankind is embodied in their vocabulary: the study of the words and forms of our own or other languages furnishes us with information about the things they represent. To say that we should investigate things and not words, is to ignore the connection between them. Watch the child assimilating the knowledge of the race through successive additions to his infantile vocabulary, or reflect how the man of science embodies his observations and experiments in a new word or sentence. Words are not dead things; they are quick with the mental life of mankind. The man whose vocabulary is limited to three hundred words remains an ignorant peasant, but in thrice three thousand words lie the possibilities of his son becoming a Milton or a Burke.

This vindication of the study of language as a part of a liberal education leaves unsettled the question what language or languages should be studied. We should all be disposed to put English first. But owing to the psychological law that nothing can be studied in isolation, that all knowledge is obtained by making comparisons and distinctions, we must hold it to be true that the man who knows only one language does not know even that.

What other language should be taken along with English cannot, I think, be doubtful. For illustrating the science of grammar and the principles of language generally, no modern tongue is so effective as Latin. In its inflectional and synthetic structure Latin is a complete contrast to English. Yet, as its vocabulary has been a large tributary to our own speech, it is not, like other dead languages, removed from the region of our practical interest and sympathy. Furthermore, as it was once the universal medium of communication throughout the civilized world, it is still indispensable to the lawyer, the doctor, the clergyman and the teacher. And though not directly necessary in the practice of other professions, the knowledge of it is the best introduction to its daughters—French, Italian, Spanish and Portuguese—one or more of which are nowadays required in every curriculum of technical education. For these reasons I should prescribe Latin throughout the entire college course—say three recitations a week. And as, apart from its utility, its reflex action on the understanding of language in general, and of our own in particular, is (along with the literary culture to be described hereafter) the ground of this requirement, it would follow that, in the teaching of Latin, English should be kept constantly in view. But this will not, of course, supersede direct instruction in our own language, which is still too much neglected. We have the evidence of Professor March that college juniors make more mistakes about the exact meaning of English than of Greek words. A liberal education certainly implies an accurate knowledge of the meaning of the words of our own tongue. And, more than this, it should imply skill in the art of putting them together into sentences and paragraphs. This acquisition is the fruit of practice and of a minute study of the typical productions of our classic writers of prose. Linguistic and rhetorical training is thus scarcely separable from literary culture, of which I shall have next to speak.

Language is the vestibule of the humanities, as mathematics is of the science of nature. But the great humanistic disciplines are history and literature: the one a sober exhibition of what has happened to, and been achieved by, man; the other an artistic picture of his deepest thoughts and feelings. Wordsworth has described poetry (which is the quintessence of literature) as "the breath and finer spirit of all knowledge." Certainly poetry gives us our most perfect knowledge of man; for the poet's insight reveals to us depths of the human soul invisible to all but the seer. We know Macbeth better than we know our nearest friend. And not only so, but our knowledge of Shakespeare's men and women has an intuitiveness and a universality that are wanting in our knowledge of actual persons. This is because, as Coleridge has well said, Shakespeare's characters are individualizations of the type. Such is the truth we find in the poetry of Sophocles and of Goethe and of all the choice and master spirits who have sung for the race. Yet the glory of the poet is not his message, but the manner of its delivery. His words are winged with images and associations that arouse in other minds a wave of responsive emotion, driving their "dead thoughts over the universe like withered leaves to quicken a new birth." And we may say that the aim of poetry is to produce just this emotion. But in awakening within

us sympathy and love for what is exalted, beautiful and good, poetry ennobles our lives, while at the same time it gives them a rare stimulus and enlargement. The culture to which it ministers is so invaluable because it is at once intellectual, æsthetic and practical. To a certain extent this has always been recognized. Among the Greeks, the study of Homer and the poets was an indispensable part of a liberal education. And when in the modern world Latin and Greek were made the essentials of all learning, it was because the literatures of Greece and Rome were the only means then in existence for the attainment of a literary culture. That old curriculum will be for our children a thing of the past. But at present it seems to me to be modified very unwisely. For if one or both of the classical languages are nowadays required in a course of study, they are dropped before the student has sufficiently mastered them as instruments of literary culture; while, on the other hand, no equivalent substitute is demanded in English literature. This is all the more deplorable in the New World where, in the general absence of the fine arts, literature is the sole fountain that might nourish ideal aspiration in our youth and save them from the remorseless grip of an all too materialistic civilization. The love or appreciation of literature is not the privilege of the few, but, in capability at least, a common heritage. And to awaken this dormant capacity, which our present training generally ignores, seems to me one of the highest functions of a liberal education. The boon survives through life, to which it is a daily benediction. And for such a return I cannot think a training in rhetoric and English language and literature extending over four years, at the rate of three recitations a week, a disproportionate expenditure of the student's time. So much, at all events, I should like to see required of every boy in college.

But with this, as it seems to me, most effective provision for linguistic and literary culture, it will be impossible to maintain Greek as a required study in the college. I have come to this conclusion with a regret akin to remorse, because I am deeply sensible of our indebtedness to Greek art, Greek literature and Greek philosophy for much that is refining and ennobling in our modern civilization. But Latin we cannot omit; and as between the Greek and the English language and literature, I consider the latter the more important constituent in the education of our boys. For the English-speaking nations it is the natural and the best source of literary culture. And scarcely an argument can be advanced for the current practice of supplanting it by Greek which would not equally apply to Hebrew. Nevertheless, many boys, for very proper reasons, will be advised by their parents and tutors to undertake the study of Greek. Others, the great majority, will turn to French or German, because of their practical utility in almost every one of the higher spheres of life. And in our ideal college I should provide instruction, elementary and advanced, in all three languages, but require on entrance as much knowledge of one of them as is now required in Greek. The language so selected should be studied for the next two years—say with two recitations a week—after which, if not continued, another of the remaining two should be taken in its place. In this way a boy who, on reaching the middle of his course, came to feel that the mission of some one language

(say Greek) had been a mistake, would still have an opportunity of rectifying it.

Besides literature, the other great humanistic discipline is history. So long as the proper study of mankind is man, our boys will need to know something of the doings and achievements and sufferings of the generations that have gone before us. An educated youth has his mind open to the past and the distant as well as to the present and the near. A lover of his own people, he is yet interested in the destinies of the nations. Devoted to his own household, his heart yet expands to the range of the entire family of mankind. His sympathy stirs his knowledge, and his knowledge broadens his sympathy. And as his studies proceed, a sense of the continuity of human life comes over him, time-marks fade away, and past and present are precipitated as an indistinguishable unity. The dead, he feels, are not wholly dead; they live, where moths cannot corrupt, in the spiritual heritage of their descendants. In studying the lives they lived and the institutions they established, he sees he is analyzing the historical and political atmosphere in which we live and have our being. And, in fact, there is no other way of knowing what we are except by studying how we came to be what we are. As, then, no American boy should be called liberally educated who has not had a course in American history, our ideal curriculum would prescribe at least two years of previous work in European history, the whole to be followed by a final course in Economics and Finance. And for these studies there would be needed at least two recitations a week throughout the four years of the college training. Why history is nowadays seldom required for a liberal education is easier to explain than to justify. When the old curriculum arose, students mastered the classical languages so thoroughly that they were able to read the Greek and Roman historians, who had then no rivals among the moderns. In relaxing the classical requirements we have allowed history as well as literature to slip out of the course, at least to all practical intents. Thus boys leave our colleges and universities without knowing enough of history and political science to exercise intelligently the duties of citizenship.

I have already spoken of philosophy. In general it is too abstract and speculative for a requirement in the curriculum of a college intended for boys under twenty years of age. On the other hand, the study of the laws and phenomena of mind seems as essential in a liberal education as the study of the laws and phenomena of matter. Besides, the modern science of psychology is as little speculative as physics, chemistry or biology. It is also an indispensable supplement to these sciences of which it is the natural sequent in a complete curriculum of study. Much the same might be said for logic in its relation to mathematics. And though there is a good deal in ethics beyond the range of boys of nineteen, at least its analytical and practical portions should by no means be omitted. In fine, while I should prescribe for the first three years of the college course three recitations a week in mathematics and physics, I would reserve that time in the senior year for an elementary course in logic, psychology and ethics.

To mathematics, physics and the humanities we have now assigned thir-

teen recitations a week. The remaining two or three must be devoted to the inductive sciences of nature. And of these chemistry, as doctrine of the elements of matter, should come in the freshman year, to be followed in the sophomore by physiology, the science of the functions of living beings. These sciences will be studied for the sake of acquiring knowledge only. But for the next two years the student should be required to select one of a number of continuous courses arranged for the purpose of giving him some experience of scientific work, some insight into scientific methods, and, what is the end of all, some glimpse of nature's workings from the point of view of the man of science. I can imagine such a course in geology, mineralogy and palæontology. But to particularize these parallel lines of allied subjects is a matter of no moment at present. It is enough to have indicated their scope and object.

Indeed, it may be objected that I have, in the last paragraph and throughout, already particularized and formulated too much. I have, however, a deep conviction that the more or less random courses taken by students in our higher institutions of learning are not those best adapted to give a liberal education. No doubt the evil is explicable. Perhaps the chief cause, apart from our imitation of the German university in the absence of the German gymnasium, is that two or three years are generally lost in the process of preparing boys for college. And colleges make the mistake of allowing boys to elect studies when they are too inexperienced to make good use of the privilege. We encourage specialization even when no general training has preceded. In the expectation that the half-trained youth may add some infinitesimal fraction to the stock of human knowledge, we sacrifice his own liberal culture. But knowledge exists for the sake of man, and not man for the sake of knowledge. To enforce this principle, we must distinguish sharply between the college and the university, and, while making everything in the latter elective, require of boys who can pass at fifteen or sixteen what are now called university entrance examinations, some such college training in the humanistic disciplines and the sciences of nature as I have here attempted to describe and vindicate. The establishment or resurrection of colleges of this type (whether as a part of or apart from existing universities), in which comparatively small endowments would effect great results, is the crying desideratum of our educational system, which, possibly, by reason of the multiplication of "Universities," is threatened with a loss of the very idea of a liberal education.

On motion, the committees on the selection of English Classics for entrance examination to College, and on the requirements for the degree of Bachelor of Arts, were continued, and instructed to report at the next annual meeting. The Association adjourned until Saturday morning, November 29th, at 9 A.M. In the evening the delegates were tendered a reception by President Patton, of Princeton College.

SATURDAY, November 29th.

The Association assembled at 9 A.M., with President Adams in the chair. Professor Butler, from the Committee on Nominations, recommended as officers for the ensuing year: For President, President D. C. Gilman, of Johns Hopkins University; for Vice-Presidents, President Seth Low, of Columbia College; Professor E. H. Magill, of Swarthmore College; President Austin Scott, of Rutgers College; President A. N. Raub, of Delaware College; President Thomas Fell, of St. John's College; Bishop J. J. Keane, of the Catholic University of America; for Corresponding Secretary, Dean N. L. Andrews, of Colgate University; for Recording Secretary, Rev. J. Y. Burk, of the University of Pennsylvania; for Treasurer, Professor J. B. Kieffer, of Franklin and Marshall College; for additional members of the Executive Committee, Dean Horatio S. White, of Cornell University; Professor Oren Root, of Hamilton College; Provost William Pepper, of the University of Pennsylvania, and Professor Allan Marquand, of Princeton College. The above were duly elected.

The Executive Committee reported that Ithaca had been chosen as the place of the next annual meeting, which would be held on the day following Thanksgiving Day, 1891.

President Adams and Dr. Magill, the Sub-Committee of the Executive Committee, appointed by the latter to audit the Treasurer's report, reported that they had examined the same and found it correct.

Professor F. H. Stoddard, of the University of the State of New York, then presented the following paper on

INDUCTIVE WORK IN COLLEGE CLASSES.

I wish to speak to-day upon a very practical topic, and therefore I shall, in the briefest and most direct manner, set forth my proposition. I am here to plead for more use of inductive methods of work in the mid-years of the college course in those branches usually chosen by the classical students in our colleges. In making such plea I know that I speak for a certain number of puzzled professors engaged in advanced work; and I believe that, speaking to you as a body, I am really speaking for each one of you as an individual. But in using the phrase "inductive methods of work," I may say at the outset that I use the term "methods" in no restricted sense. Every teacher has a dozen methods; uses no single device or plan; finds this one or that one

fit for his purpose, as subject, opportunities and occasions change. Moreover, the consideration of such matters as details of manner would hardly come within the province of this assembly; and I am quite sure that we should not expect to greatly advance ourselves by the advocacy of such plans or the consideration of such details. I do not use the word, then, in the limited sense of the detail of procedure, nor even do I seek to limit my meaning to the more general phrases which we have all agreed to use for description of inductive procedure; such as, "the seminary method," "laboratory work," "divisions of special investigation," and the like. I come to plead for no special laboratory scheme. I wish only to urge that at some time during the years of his college course, the classical student may have the same opportunity that his scientific brother now has, of learning how to investigate for himself, and have some practice in the art of grouping particulars so as to lead up to original and definite conclusions.

That very little really inductive work is now done, in the classical courses in the majority of our colleges, has been forced upon my attention by experience. It is my duty and privilege, as it is, I have no doubt, the habit of most of the members of this body, to have in charge a considerable number of graduate students pursuing post-graduate studies. To these studies I think we will, most of us at least, agree, the seminary method is exactly fitted. Most of us became, indeed, so accustomed to this method in our work abroad that we know of no other plan whereby the highest grade of work can be done, with the best of our students. Now, I appeal to the experience of you who are here present, if I am not right in the statement—that very few of the classical students, graduates though they are from our best colleges and universities, come to us equipped with any training whatever in inductive methods. I think I hardly need to quote figures, but I may say for myself that out of thirty-two students under my care in my special branch, during the past three years, graduates representing the classical departments of seventeen different institutions, including Yale, Oberlin, Williams, Dartmouth and Princeton, only two students, both of whom came from Princeton, had any notion when they came to me of inductive methods, nor any respect for, or appreciation of, the value, thoroughness and discipline of the seminary system. So far as this limited experience goes, then, it would support the proposition that very little inductive work is done by classical students in the mid-years of the college course. This view having been suggested to me, I have found great support for it in examining the text-books now in use in our colleges. Since we most of us edit text-books, it must be that we believe that instruction is now carried on in most of our colleges by means of text-books. These text-books, in the branches with which I am familiar, are almost without exception deductive in method from opening to end, and adapted for didactic methods only. For English literature study I know of but three text-books, for undergraduate use, now offered which can be used to advantage in seminary divisions. I hope, then, that I am mistaken, but I am certainly of the opinion that very little work of investigation is now done by the classical students in our colleges. If this be admitted, I stand before you to plead for an increased use of inductive methods.

But I do not stand to urge this without a perfectly clear understanding of the difficulties involved in doing seminary or investigatory work with large divisions, and under ordinary circumstances, in our colleges. These difficulties, with classes as ordinarily constituted, are very great. Indeed, with very large divisions such method is almost impracticable. The difficulty, of course, is to supply problem material and working facilities to so large a number, engaged at one moment in the same necessarily rather limited field. For such work is needed an English literature laboratory, and a Greek laboratory, and a Latin laboratory, and a Philosophical laboratory, and a Political Economy laboratory, each equalling in cost and in space the Physical or Chemical laboratories rightly considered essential for scientific studies. But if we ask such laboratory facilities from trustees and generous benefactors we do not get them, but instead are given a ten by fifteen alcove in a library, an equipment quite comparable to the Chemical laboratories of a generation ago in our colleges, with their two sinks, at which sixty students were expected to carry on operations of experiment, and of discovery, in thirty turns, of fifteen minutes each. With large divisions then, I say, extended inductive work is very difficult.

And this difficulty brings with it a second one. It is the constantly attendant evil of hardship of condition—the attempt to cover without completing. Excessive conditions are always immoral conditions. A moral inadequacy is almost invariably the concomitant of, if not the consequent of, a physical inadequacy, or an inadequacy of condition. In such work, then, it is very difficult, no matter how conscientious we ourselves may be, to compel an attitude of sincerity from students making simulated bricks with an essential of raw material absent. The student, if not the professor, comes sometimes to wink at the employment of all sorts of assistants, compendiums, compilations, originals in the fourth or tenth solution, introductions, handbooks, and make-ups of all sorts, handy guide books for a Cook's tour of a three-months' trip through literature. Under these conditions it is very difficult to keep the moral system in tone in the employment of this method of work.

There is a third condition of difficulty in using the seminary method, the dealing with the element of time. We gain momentum by the system, with a loss of speed. Steady, regular, harmonious progression, so dear to the pedagogic person, becomes impossible when individual research is the plan. Results come very slowly; to some members of a division they never come at all; to all young students they perhaps seem meagre brain-sustenance compared with the full meat diet of the professorial lectures in the deductive course next door. Absolutely as well as relatively, the time question is an important one. The years of training are very short. In these years must be gained knowledge as well as discipline; and the spending of weeks and months upon investigations, the results of which, in themselves considered, will be of little value, and the difficulties of which are great because of the incomplete equipment of the investigator, is sometimes a questionable use of force. It is a real condition of hardship; and the attendant moral harm comes inevitably in a diminished pedagogic stress. The race is long; professors and students have great temptation to quit on the last quarter, in

doubt of ability to cover ground enough to save themselves from being distanced.

Finally, the seminary method is most difficult of application to students of the humanities in the mid-years of the college course, on account of the almost absolute lack of what I may call problem-books. Reference guide-books, certainly, are coming in, bibliographies of this and that; but problem-books, records of, and suggestions for, inductive work are very rare. They are common enough in Germany, and German pamphlets containing them lie in piles upon our tables, useless, however, to perhaps half of our divisions because the students have studied Greek and, "therefore," as they will tell you with placid satisfaction, "do not know German."

Formidable difficulties, then, are these. Recognizing them, and fully realizing their imperative character, I yet come to plead for an increased use of inductive methods in the years of the college course. I urge it, indeed, because of the difficulties. The studies, known under the name of the humanities, have, perhaps, in late years lost something of their exclusive importance as disciplinary aids in education because the methods adopted had so much of fixedness and so little of flexibility. Fixed in habit and method, quailing before difficulties whose extent and importance they have never investigated, many of our college instructors have come to be timid at thought of contact with the living issues of modern educational life, and they send forth yearly students as prejudiced and as timid as themselves. The helplessness of the average classical student in the first years after graduation has become a matter of common fame. He has learned to lean upon and trust an authority outside of himself, to the temporary enfeeblement of his own executive powers. He will be aided to independence, I think, if he be sometimes compelled to think and labor for himself; and therefore I conceive it of very great importance that every student should have some acquaintance with this method. I urge it first on this lowest ground, that of the value that a practical knowledge of the best methods of individual investigatory study will be to the student in after-life. It is no small part of the student's education that he gain acquaintance with differing habits and plans of work of which before he had no notion. The best stimulant to new endeavor is the consciousness of past achievement, and new endeavor of this sort is the business of the graduated student. It is the method he will use in his post-graduate studies if he become a graduate student. It is largely the method he will use in his technical studies if he enter a profession. More important still, it is to a great degree the method he will use in his life-work, whatever that work may be. On this low ground of utility, I urge it.

In the second place, I urge it in the interest of the art of teaching. It is our privilege to cultivate in the student a respect for scholarship and for scholars. Now the student has a vigorous respect for that which is difficult; and there is no pony, no crib, no lecture abstract, no crutch for the lame, in the seminary division. The student makes his investigation, or he does not make it, and in either case is pretty sure to come out with a healthy and lasting respect for the fellow who has made it. Teachers, as teachers, do not, I apprehend, to-day impress themselves upon the world as they did a

generation ago. It is the investigator who commands our plaudits. The habit of thought in the world has changed in a generation. In the interest of the teacher's art, then, I urge that even in dealing with the classics some of our methods recognize this changed thought-habit.

Finally, I would desire more inductive work in our classical courses that we may keep all of the work in our colleges in touch with life. "The principal business of life," remarked Emerson, "is the forming of inferences." We have before us at this session suggestions and plans for university extension, suggestions and plans for the more perfect articulation of the college course with the professional course. What are these but indications of a desire that the college life and the college thought be made to fit with the larger life and the larger thought of the world. The college years are no longer conceived of as a period set apart from life, a period during which studies and recreations having no relation to later habits of thought and work can be pursued. The college has ceased to be a cloister and has become a workshop. But one corner, the classical retreat, has in most of our colleges held fast to traditions and is somewhat in danger of perishing with its traditions. If learning is to live, learning must keep in touch with life.

In spite of, and indeed because of, the questions and difficulties in the way, I make this plea for more of seminary work, in the classical divisions, in the mid-years of the college course.

The paper was discussed by Dr. McCosh, Dr. Magill, and President Adams.

Melvil Dewey, Secretary of the University of the State of New York, then addressed the Association on

THE RELATION OF THE COLLEGES TO THE MODERN LIBRARY MOVEMENT.

In the fifteen minutes allotted me I can only give the texts on which, if I ever get the opportunity, I should like to preach to this body the sermons.

First, what is the modern library movement? Libraries are of three kinds—storage, recreation and laboratory libraries. Of course, every library must have its function as a reservoir for storing literature. Certainly it is a proper function for public and many other libraries to furnish the highest kind of recreation. The conception of the library as a laboratory is comparatively new, and is an essential part of the modern library idea. There was a time when only chemists considered a laboratory as essential to their college work. Then we found the necessity of laboratories for physics, mineralogy, geology, biology, botany, zoology, etc., and Professor Stoddard just now voiced the feeling of every first-class instructor with the modern spirit when he demanded for his department an English literature laboratory.

As we glance over the field of philosophy, theology, political and social sciences, philology, art, literature and history, we find that for everyone the library is the laboratory, and that even in science where certain apparatus is necessary the library is also the laboratory in supplying in books and serials the result of the world's experiments.

The functions of all libraries are threefold—to get, to keep, and to use. The old librarian had the miserly instinct of *getting* as many books and pamphlets as possible, usually also of *keeping* them safely; but it is a large item in the modern library idea to *use* this material to the fullest extent. To get, to keep and to use, but the greatest of these is to use.

The modern librarian is proud to show how much his books have been worn by legitimate use. The old librarian was distressed to see his books show signs of wear. Indeed I knew of one case in which a college librarian sent a request for the president to read in chapel, that the students should abstain from reading a certain article in the Encyclopædia Britannica which a professor had commended, because those leaves showed signs of special wear and detracted from the beauty of the volume.

Most libraries have also the threefold departments for reference, the news-room for serials, and the circulating department for home use.

As the next text, note—without exact chronological order or anything more than suggestion—how marked and universal has been the movement in developing the scope of education. It was once for the rich alone; now for the poor as well. It was for the nobility; now for the common people, so that often the education of a modern bootblack would put to shame that of a mediæval knight. The old education was for males only; to-day some of the best higher work at home and abroad is being done by women and women's colleges. The old was for the bright; the new also builds schools specially for the feeble-minded. The old was for those with all their faculties and senses; the new includes the blind and the deaf, and astonishes the world with the results attained in spite of what once seemed insuperable obstacles. The old was for natives only; the new concerns itself with immigrants, the Chinese, etc. The old was for the white; the new is doing famous work for blacks and Indians. The old conceived of only elementary education for the masses; the notion is now abroad that something higher belongs to every citizen, regardless of nativity, color or sex.

Now mark the two distinctions that are most modern, for all these that I have named have been already generally received. The old education was for the young; the new will provide for education all through life. Last, the old education was thought of as confined to schools and colleges, and when students left them the idiom of the language had it that their education was "completed." The modern library idea assumes that education is not for the young only, but is to last all through life, and that it is to be given not alone in the schools, which furnish the best tools for carrying on an education, but that it is to be given at the home and in connection with the regular work of life.

We find circumstances exactly adapted to these new ideas, for there is a growing difficulty in keeping students in schools and colleges long enough to complete satisfactory courses; but at the same time there is growing opportunity for out-of-school education because of shortened hours of labor.

The modern library idea recognizing all these conditions would provide, with the library as the central and most important part of the institution, what we call the people's college in every community of any size. If this

idea were housed in a building in the form of a Greek cross, one wing should be devoted to the library, another to the reading-room, a third to the museum of science, and the fourth to the museum of fine art; for our conception is clear that with the library in the people's college should go the museum, including not only science and art, but historical and other museum collections which help to educate by exhibition. When we take a book from the library we learn by holding the printed page before the eye and taking in new ideas; when we stand before the picture or marble, or case of scientific specimens, we are simply taking in ideas through the eye by reading not from the printer's book, but from the book of nature or art. The second story of our building would provide lecture and seminar rooms for university extension courses, classes and other agencies essential in completing the work of the people's college. To illustrate the growth of this idea, I mention that Milwaukee hopes in its new library, for which plans are now being drawn, to include in its upper rooms a feature, as yet untried, as a part of their musical library in which texts of the best music will be provided. Remote from the reading-room they hope to have a piano, violin, guitar, flute and other instruments, so that musicians consulting the musical library may have an opportunity to read the music they are consulting, each by aid of the instrument which he plays.

The work to be done by an ideal library is threefold. First, it should make more readers than ever before, inducing those to read who have not acquired that priceless habit. Second, it should teach its readers better methods, in order that they may obtain more from their reading, learning how to get the most out of a book in the shortest time. Third, it should teach them to read better books. The ideal will only be attained when a librarian may closely approximate to giving to each reader at each visit to the library the book that then and there, and to him, will be most useful.

The duty of the college. You should first make your own library include the modern and most important functions—to be in the best sense a laboratory. The college as well as the university is responsible for this work which some at first thought consider as belonging wholly to the university. But college training is to give tools for getting further education, the most essential of all being the ability to use libraries effectively. Every reputable college owes it to its students to give them not only experience in a laboratory library, but also instruction in the use of bibliographical apparatus. To make your libraries what they ought to be, you must, of course, provide the best books and serials. Will each of you think for a moment of your own library, and estimate what per cent. of the books now in it you would buy as the best, if beginning anew to-day? You will be astonished to see how small a percentage of the volumes which you report you would dare call the best existing for your purpose.

The college library should be like the college well, open to the students whenever they are in the mood to use it, and not at fixed and limited hours. From eight in the morning until ten at night, including holidays, the doors should be open for all who wish to come. Too many are as I found the New York State Library two years ago—it was carefully locked till the hour when

every officer and clerk in the capitol must be at his desk, and was as promptly locked again when they were released, so that throughout the year it was ingeniously arranged that they never had access to the books. It is now open for twice as many hours, including all holidays and vacations.

Another important feature for which the scholarly mind is in danger of feeling too little respect is the provision of physical facilities. Library rooms in light, heat and ventilation, in tables, chairs and all conveniences for work, should be carefully arranged to avoid distracting the attention of the busy worker. A man cannot do his best work in an uncomfortable chair or in a bad light or in an unventilated room.

Your students should have more liberal access to the shelves. It will cause some confusion and make extra labor for your librarian. You may even sometimes lose a book, but suppose you lose twenty or fifty or one hundred dollars' worth (which experience proves you will not), the privilege is worth tenfold that cost to the body of students in whose general education it will play so large a part to be able to handle the books for themselves whenever they can command a leisure hour.

The books and physical facilities must be supplemented by bibliographical aids, by the best catalogues, classifications and indexes, by shelf-labels, guides and by notes and ample cross-references. Stop and think what this means, and you may avoid a common and grave mistake of expecting too much in too short a time. It takes time, money and sympathy with this great work for even the best librarian to get his collection in complete working order. We have seen repeatedly, when some college or board of trustees were a little stirred on this question and determined to do something to improve the library, the most ridiculous expectations as to early results. It is a great undertaking to so arrange and administer a collection of 100,000 volumes that to any man it will be possible, within a few moments, to give from that collection not only the book or pamphlet, but the article hidden away in some volume of transactions, or in some periodical, which to him, then and there, is the thing he most needs. It requires almost infinite labor, but it is well worth the cost. Think of this, and do not, after a new librarian with the modern spirit has undertaken this herculean work, expect in a few months or even years that he can transform a great collection as if by magic, properly catalogue and prepare all the new material received, and also go back and do the work that has been left undone perhaps for fifty years. It is as foolish as if a family living in tents should begin to build a splendid hall of stone, and before the foundations had fairly risen above the surface of the ground should pass judgment, saying this new plan that promised such extravagant things is a failure, for it is no warmer or more comfortable than in the old tents.

That the colleges are turning their attention in this direction is evident when we look about and see that nearly all the leading institutions have, within the last few years, built new and greatly improved library buildings, and yet hardly one of them has by any means realized the ideal. Harvard, Yale, Columbia, Cornell, Amherst, Dartmouth, Williams, the Universities of Michigan, Vermont and Pennsylvania, Syracuse and Colgate are among those that occur to me on the spur of the moment.

But the colleges have a responsibility beyond making their own libraries what they should be and showing their students how much can be accomplished in liberal education in a well-administered library without other aids. You ought to send your graduates out with such an appreciation of what it is possible for a library to do as will make each a missionary in the town where he may live, earnest and active in seeing that it is provided with what the modern librarian calls the people's college. I see here a graduate of Amherst, whom I have not seen for fifteen years, who recalls a classmate who wrote me this week that he had remembered the seed sown in one of my lectures before his class in 1875; that he was now a lawyer in an inland town and trustee of its academy; that he had contributed largely himself and succeeded in raising from others sufficient money to make a creditable beginning on a library which they meant to make something near the ideal which I had set before him so many years ago. This illustrates my point, that if the subject is properly presented, sooner or later the seed sown will bear fruit. The colleges owe it to the public in every way to aid this great educational movement.

As pointed out yesterday, university extension work, which is an essential part of the modern library movement, is revolutionizing the face of England, bringing old Oxford and Cambridge into relations with the general public such as have never existed before. With us, we are giving great privileges to our colleges. In New York we have repealed the old laws limiting the power of holding property to $,000 for academies, and to 40,000 bushels of wheat for colleges, and raised the limit to $250,000 of annual income. We have freed them from taxation. We last year freed them from the five per cent. collateral inheritance tax, and are constantly, by law, giving them great powers and privileges. To them much has been given, and of them much will be required. The colleges cannot, in justice or with safety, much longer neglect the higher education of all the citizens, and confine their efforts to the favored few able to bear the cost of four years' residence.

To accomplish these results two things are needed. First, money for buildings, books and equipment. If the right brain guides its expenditure this will accomplish much, but it is not the most important factor or the one most difficult to-day to secure. However fine your library and its equipment, it will never be more than a half success unless there is behind it a large, strong, earnest human soul which will supply the vital force that makes all the plant efficient. It is as if every building on this campus was equipped most splendidly with chandeliers and electric lamps, beautiful in form, perfect in model, and lacking nothing but the dynamo. Without that connection they are cold, dark and useless, in fact as well as technically "dead." The librarian holds a similar relation to even the best equipment. To spend money on the plant without securing the man is as unwise as to build the finest and largest cathedral organ and then put on the bench a young girl who can only pump out Moody and Sankey hymns. You will never know the almost divine possibilities of the instrument until there sits down to it a master of every stop and pedal.

Realizing all this for many years, we who had most at heart this modern

library idea four years ago established a school for training librarians for their peculiar work. It started with a twelve weeks' course which rapidly developed, as it only partially met the demand, to six months, a year, and after one season to two years.

It has drawn candidates from Maine to California. Its standard has been raised each year. We have to-day thirty pupils at Albany, coming from some fifteen different States and representing many of our best colleges, but yet we have not enough of the best material to meet the demand which is increasing all over our land. The duty that I wish most strongly to urge upon the colleges to-day is that you should present or allow some of us who are interested to present to every class the unequalled opportunities of usefulness offered by the librarian's profession at just this critical time when it is developing so rapidly. We probably do not want one out of a hundred of your graduates. We reject each year scores of candidates. We have no place for the men that will probably not succeed in law, or medicine, or in the pulpit, but we do wish above all things to secure the occasional man whom nature has fitted for the highest success in this peculiar and inspiring work; a man with capacity that would command success in business or in the learned professions and who will welcome this great opportunity. If you can send us such men you will not only do them the greatest service in finding for them an ideal life-work, but in the end, in the far-reaching influences, in the work accomplished for higher education by their agency, all that it has cost you will come back ten, or twenty or a hundredfold.

Mr. Dewey's address was discussed by Dr. Gallaudet, of the National Deaf-Mute College.

The following paper was then presented by Dr. James McCosh on

THE MORAL AND RELIGIOUS OVERSIGHT OF STUDENTS.

At the starting of American universities, and for a thousand years from the reign of Charlemagne downward, great care was taken of the morality and religion of the students. But as the colleges became larger, and as the teachers felt it difficult to get time to attend to private character, and as the cold spirit of the eighteenth century crept over the Protestant churches, less and less attention was given to instruction in morals and religion. In the Scottish colleges, in which I was educated, there was little or no attempt made to form the private character of the individual student. (I was five years in Glasgow University, and stood well in every class I attended, but, while expected to, I was not just compelled to listen to very poor preaching on Sabbath, I had never had a sentence or word fitted or intended to benefit me in conduct or in piety.) I was never in the house of a professor, except to pay my fees to him. All the while the professors were faithful in giving instruction in their several secular departments.

What was the effect of this mode of education on the character of the young? On being left to themselves and away from their homes and parents,

did they behave better than if they had been under narrow professional control? I may give my own experience. Between twenty and thirty young men came up to Glasgow University from the "land of Burns" in the South of Ayrshire. They came from decent families. I was acquainted with all of them. It is one of the very bitterest recollections of my life that one-half of these promising young men fell into vice and disappeared from view; they were remembered only for a few years by parents, brothers and sisters, and a pang went through their hearts as they thought or were obliged to speak of them. I ventured on one occasion to tell one of the professors of this state of things. His answer chilled me: "I am not concerned in this; my business is simply to teach effectually the Latin tongue."

When I travelled 7,000 miles in this country in 1866, and visited a number of colleges, with no idea of settling in any of them, I inquired carefully what was the nature of the instruction imparted in the American colleges, when I was unexpectedly called to be President of Princeton College. I had carefully to consider on what principles I should proceed in dealing with the character, moral and religious, of the students committed to my care. I found that, in by far the greater number of American colleges, a strict account was taken of the moral and great attention was paid to the religious training.

Which of the methods was I to follow—the looser, or more liberal, as it was claimed, European method, or the more rigorous American plan? I did not decide at once. Without changing the old system I observed what was going on under it. I saw that some of the college regulations were too minute and formal, suited to boys rather than men, and fitted to irritate rather than restrain. I felt that we must be careful not unnecessarily to offend young men by withholding from them all liberty of thought and action. I saw that a clear line of distinction should be drawn, too, between mere playfulness and fun, on the one hand, and disobedience, rebellion or immorality, such as drinking, on the other; and that the former, however weak and even silly, need not be restrained; whereas, the latter should be checked and suppressed at once by peremptory discipline. I remember on one occasion noticing a band of students laying hold of a horse, so thin that his ribs could be counted, that had wandered into the campus for better pasture, and dragging him into the room of one of our goodly students. I turned away my eyes and retired speedily, believing that the goodly student might be profited by being compelled to fight his own battle.

Acting on these views, I allowed some of the restraints laid on the students by our fathers to fall into abeyance; as, for instance, the rule that every student should be in his rooms by a certain hour in the evening, and that the tutor should go around and see that he was there. I saw at once that if the professors and students played at the game of watching each other and hiding from each other, the students would certainly outwit the professors and gain the victory over them. By stretching the bow too rigidly I saw that it might break. I perceived that, as the result of a suspicious watching, there would be the formation of a spirit and system of concealment, of lying and of deceit; so I told the tutor to avoid everything like espionage, such as peeping through windows or listening at keyholes. I said,

"Let all you do be open and undisguised." On rare occasions, when I was afraid of anything going far wrong, I sometimes went out on the campus at a late or early hour, but I walked on the broad path, and if I met a student I spoke to him in a friendly manner and allowed him to tell his story to me if he saw fit, which he commonly did.

I insisted on having a tutor in every building in college, not as a spy, but rather as a friend to associate with the students. If he noticed a student often out at a late hour, constantly coming from a town of some distance; if he discovered students evidently joining in drinking companies, he was to deal with them himself or send them to me, that I might deal with them, which I did. If the case was aggravated, open disobedience or immorality, we had to bring the case before the Faculty, perhaps to send the youth home for a time to his parents. When he took the discipline in the proper spirit we received him back with smiles, and never referred again to the occurrence.

Thank God, I am able to say that I was able to save an immense number of young men going astray by this treatment. When the parents joined us in enforcing the discipline, it seldom failed to accomplish the desired end. The result was commonly different when the father and mother were bent on resisting the Faculty.

Some may remember that I had a controversy with the President of Harvard at the Agnostic Club as to the place which religion should hold in a college. I shall not fight that battle over again. I believe that good arose from that discussion. Since that time a new method has been adopted in Harvard of providing religious instruction. Eminent ministers are invited to come and preach to them and hold conferences with the students. There are good features in that method. Young people are apt to look upon able, intellectual men and to be swayed by them. But I am not sure that this method reaches all the students or the majority of them. I believe that those who go to the public services and conferences get good. But I am afraid that all do not avail themselves of the privileges vouchsafed to them. There are cases in which those who most need the religious instruction do not attend to it; those who have no knowledge of religion or have no interest in it; those who are beyond the reach of parents and their counsels; those who wish to spend the Sabbath in amusement or in travel; those who have fallen into vice from which they are not willing to turn.

The Harvard plan is good so far as it goes. By all means let it be continued, and something more individual may grow out of it and be added to it, so that every student may be reached and personal application made to him.

The Harvard method is one which cannot be adopted in every college. To bring distinguished preachers to our smaller colleges would be found oppressively expensive. Besides, I am convinced that the methods hitherto adopted in our colleges—that of the teaching officers holding familiar intercourse with their pupils and influencing them for good—is the most effective and likely to be the most effectively useful.

I am sorry to find among the larger colleges in America a tendency to give up the oversight of students out of and beyond the class-room. The

same process is going on in the United States as led in so many colleges in the Old World to the abandonment of all general superintendence.

If the process goes on as it is now doing, public sentiment will be so freed as to make it impossible to return to the old method of superintending the conduct of students.

I hear of young professors taking up the ground: I am bound to teach Greek or I am bound to teach physics, but I am not to be annoyed with anything beyond the walls of the class-room. I do trust that the president and the professors of colleges will continue, as in ages past, to attend, not only to the scholarship, but to the moral and religious welfare of their pupils. This will be for the good of the teachers as well as for the good of the taught. I grant that every professor may not be fit to conduct religious instruction in classes, but all professors, each in his own way, may exercise a beneficent influence over the conduct and character of his pupils. Even what is done in weakness, if done heartily, may be accepted and gratefully received by the young men. I believe that the teacher, with the proper Christian feeling, is sure to become interested in his work. I am sure that when he has ended his work he will look back upon this part of it with satisfaction. In casting my mind over my work in Princeton College, there is no part of it on which I reflect with purer joy than that in which I have saved a young man when being led into sin. I am confident that the interest taken in young men and the attention paid them will almost always be met by deep and tender gratitude.

The following paper was then presented by Professor Jacob Cooper, of Rutgers College, on

THE TRUE SCOPE OF COLLEGE DISCIPLINE.

The frequent reference to the education and attendant discipline of our young men in colleges and universities is a clear index of its importance. The interest felt is natural. For no other body of equal size contains so much worth, or is destined to wield so much influence. Of all the topics relating to the general problem of education this is the most weighty, because from colleges are taken the leaders in every department of teaching and culture. Neither the frequency nor ability with which such a subject is discussed is any reason why it should not be taken up again, since every matter which interests us is infinite in its scope, and therefore inexhaustible in its treatment. Unless, then, the last word which the subject admits has been said, neither the intense light shed by genius nor the side light of mediocrity excuses the duty of an honest attempt to elucidate a matter in which all thinking people are interested.

How shall we manage our youth who are in the higher institutions of learning, in order to get the best work from them, and in doing so effect the best discipline in mind and heart? It is not proposed to discuss the material or length of the curriculum; whether the age at entrance be greater or less than at present, or the requisitions for admission more stringent—nor yet

whether the instruction shall be by recitations or by lectures: whether the marking system be employed in the daily routine, nor the frequency and rigor of examinations. None of these matters concern us at present, except incidentally as they bear upon our main subject. This, stripped of all that is irrelevant, is: What relations between professor and student are adapted to produce the best results? Our topic may be conveniently treated under three aspects:

I. What sort of a creature is a college student?

II. Is he to be made over or developed?

III. Ought discipline in knowledge be separated from discipline in religion?

I. What kind of material have colleges to discipline? It undoubtedly represents the best elements of our people both for ability and previous culture. While every station contributes its quota, our students are largely made up of two elements: First, those who come from cultivated and well-to-do families, those which represent, in the main, the worth and religious forces of the country. These have already enjoyed great advantages, and have laid the foundation of rational obedience. They have lived in a pure atmosphere, and imbibed during childhood that unconscious culture which is the best warrant for future good conduct. They have the leaven of our common Christianity, whether they profess it or not. Whatever they may not know, however faulty their literary preparation may be, one thing may be safely assumed: all students who come from the better classes, which furnish the majority of those who seek advanced education, do not need to be taught formally either manners or morals. They are not perfect in either; but the first principles have been implanted, and can be utilized better by assuming that they will develop themselves in the right direction than by fault-finding and arbitrary attempts to correct trifling errors.

The second element of student patronage consists of those who come from poor surroundings; not necessarily vicious, but humble. Such young men are superior to their environment, and evince this by the fact that they have made themselves able to knock for admission at the doors of a college. They have already wrestled with difficulties which no language can adequately describe. They have displayed a heroism equal to that of the bravest soldier on the field of battle. Their struggles would seem incredible to any but those who have experienced the like, because through the modesty of true worth they are not exposed to the world. Such youths come to college with singleness of purpose. They have a consuming desire to gain knowledge, that they may have greater power to do good. There is a divine spirit stirring within them, which is the earnest of success. They may be awkward in manner and uncouth in looks and dress. They often offend against the rules of polite breeding because necessary toil has shut them out from all schools of manners. They may through ignorance—not with malice—encroach on the rights of their fellow-students, or even of professors. But they come to be taught, and every fibre of their nature absorbs instruction as the sponge does moisture. They may, they should have spirit, even as others of their own age, and this sometimes be rude and

noisy; for all healthy young men should run over with fun and frolic. If they do not have this temper they are sick, or their spirits crushed by hardship.

This second kind of students, having already risen superior to its home environment because there is an intense desire for improvement, needs little watching and no caustic reproof. Their best instruction in deportment comes from the society of their companions. The good-natured chaffing, which is a marked feature of student life, is the proper antidote to rude and uncouth conduct. The attrition caused, it may be, by the over-refined dandy mingling with the raw country lad, is equally good for both, since each is corrective of the other's faults.

A class of young men between the ages of sixteen and twenty-two, drawn from the sources described, as it finds its way to the recitation-room of a college, contains unlimited possibilities for moral growth. It possesses every degree and kind of excellence, including all the elements necessary to secure gentlemanly conduct, provided its inherent power is not antagonized by needless interference. Hence every college officer may trust his classes to behave themselves mainly in the proper way, provided he shows confidence in their general purpose to do right. For it is a truth of universal application that men will do better when their honor is trusted than suspected.

We should always remember that the student does not come exclusively for study, for the routine work of the class-room. He comes to enjoy a charmed existence, which is the right of every youth while passing through life's brightest season. Now the playfulness of childhood is intensified by the movings of ambition, and chastened by the growing sense of responsibility which a wider acquaintance with the world engenders. Underneath all his rollicking there is a determination to work and make something of himself. Despite his fun and frolic, his rough play and innate desire for mischief, there are both a vein of goodness and a willingness to grapple with difficulties; a pleasure in hard work and a readiness for generous self-sacrifice. He expects to have a good time in his college days, and should not be disappointed. For no man can do his best work while unhappy. Hence it is as much one's duty to be happy in this world as in the next, and every living creature will be able to exert greater power when the body is strengthened in its activities by the glow which a cheerful spirit imparts. As the expectation that he is going to have a merry, a joyous and bright life at college is reasonable, it should be recognized as his right. This being the case it is just as much a part of the instructor's duty to add in every reasonable way to this happiness as to teach him in literature and science. For success in the serious employments is dependent on the spirit with which the pupil works, and hence there should be as much care exercised to keep his mind in a fit condition to receive information as in imparting it. For if he be unhappy, or soured through a feeling of wrong, even though it be unjustifiable, his mind is closed against instruction from books, and his heart rendered impervious to the better influences of his teacher's character.

II. Our next inquiry: Is the student to be made over or developed in his individuality? This part of our subject may be properly considered under three heads:

(*a*) Unconscious influence.
(*b*) Formal restraint; that is, college government proper.
(*c*) Teaching, *ex-cathedra.*

He is to be made a cultured man, with mind and heart disciplined for all good uses. It is with him the transition period. During the time of pupilage he goes into a sort of retirement. Not into a cloister, where his powers will be weakened through disuse, but where he will be freed, for a season, from the distractions of care and business; where no sounds of strife for lucre, no rude jostling in the marts of trade disturb his quiet growth. There is the place and the period for gathering strength to meet the real battles of life. There he is to be made or marred in the brief period of pupilage. The transformation in four years is marvellous. This may be seen especially in the case of those who have had to struggle with poverty, and have not enjoyed the blessings of a cultivated home. These make their first appearance about the college as timid, uncouth creatures. They pass a poor entrance examination, and if they get through this it is rather by faith than works. They not only look but feel awkward. They are the butt of the dandy student, and try the patience of their instructors. But they come to learn, and will not be content without getting that for which they came. They have a latent idea of their own powers, but feel the need of a Socrates for mental accouchment. They are studious, docile, grateful: while feeling their own inferiority, they are not craven. Close application to study and cheerful obedience win favors from all whose favor is worth possessing, and put to shame censorious criticism. Confidence is gained by measuring intellectual strength with their peers. The rough exterior, inherited from hardship and humble surroundings, is cast off like the covering of the chrysalis; and at graduation we see the manly, refined, capable scholar, equipped in culture for the best position among his fellow-men. He has gained that for which he came to college. His more favored brothers, with greater early advantages, needed to measure their strength with those, who, without inherited prestige, have the ability to win their own honorable places. By this good-natured rivalry and the prudent oversight of their instructors, they have learned not to think more highly of themselves than they ought to think. Now they are more ready to accept the world's true estimate than the partial judgment of their family, or the little coterie of friends when they had assumed the role of oracles. The interaction of these diverse elements in the miniature world of academic life is the best preparation for that larger sphere which opens up to every college graduate who has sufficient strength and beauty of character to enter and occupy.

To insure this result must the student be fashioned *de novo*, or does discipline consist in developing individual character? Undoubtedly all curative processes, whether of body or mind, consist in wisely aiding nature. There are some elements which distinguish each man and constitute his personality. If you destroy these you destroy the man. The Leibnitzian theory of morals undoubtedly holds good of the human soul. For there is a personality which, under all changes, modifying the differences of character, must be retained. Each soul has its own position in the world *ex-officio* by

creation. The germ swells into the bud, the bud unfolds into the flower and matures the fruit. Culture shows its good effects at each stage, not by destroying the essential nature, but by enabling it to slough off what is undesirable and amplifying the qualities to be retained. This is nature's way. The tree must first be planted in good soil, then nourished by suitable plant-food drawn from earth, air and water. It is to be shielded by enclosure from all influences which can harm, and so stimulated to develop its native powers.

A good college embodies incalculable moral forces. These do not consist exclusively in libraries, however large and well selected; in magnificent architecture, though this is a teaching force, as well as a convenience, not to be despised. Neither do men of great ability and wide reputation, filling the chairs of instruction, constitute the whole. All these might be combined and yet fail to make a college of the first excellence. There is something intangible, which is the hiding of power, in these sacred precincts, made up of all combined influences of library, architecture, teaching force and alumni who have left their impress. This is the *genius loci* whose presence pervades the whole locality. When the student is planted in such a soil, if there is anything in him, it will be quickened into activity. Take Oriel College at a certain period of its history. There was the silver-voiced Coplestone, with the keen dialectics of a Parmenides; the clear-headed, honest, witty, but awkward, Whately; the gentle, poetical Keble; the shrewd compromiser Pusey; the classic, eloquent Newman, combining the faith of a church father with the trenchant pen of a critical reviewer. These, with their *confreres* scarcely less able, created an atmosphere which of itself was a force of education sufficient to quicken and call out every noble impulse of the soul. Such environment does more than anything else to form great men, provided there is material to be fashioned. It cannot create intellect where the germs do not exist, any more than Hartmann can put life into his witches' caldron where he manipulates his Stoff; or Hegel evolve Seyn out of Nicht Seyn by the incantations of his logic. But the spirit which pervades the place where such men live will take possession of the student who has any receptivity. It will prove a subtle energy in his mental frame, arousing him as Venus' fire of love excited Sappho.

All places cannot be like Oriel, nor can any but the favored few be admitted to such penetralia of culture. Yet every college which has any *raison d'être* possesses something of the hidden force, and this will show itself by its results. This unseen though potent factor may be discerned in the influence of Woolsey at Yale, of Edwards at Princeton, of Hopkins at Williams, and of Nott at Union, who though dead still speak. Educators do not count enough on this factor. The visible and the tangible demand immediate attention. Hence the teacher is so much absorbed in his task that he is prone to live exclusively in the present. But we must remember that spiritual agencies are not bounded by time. They live *sub specie æternitatis*, and their blessedness is felt forevermore.

Akin to this is the force of the living instructor. It is not his learning alone, or, perhaps, even chiefly, which constitutes his personal force. His

character, which is his moral energy, and the one potent in controlling others, is made up of many elements. Great talents in one direction may be so neutralized by littleness in other ways that, after striking a balance, which the inexorable logic of experience will always do, there is left but a very small residuum for good. This fact is doubtless the great secret of success or failure in the efforts of men wherever employed, but nowhere more plainly to be seen than in the college world. This energy, like every other force, is bound to work. For nothing can annihilate force, which performs its task, either in propulsion, in checking counter-forces, or overcoming inertia. When you come near a really great man you may feel his personality so as to become conscious of his greatness; as it may affect you in ways not perceived at the moment, perhaps never. But still you have been attracted or repulsed, and the latent energies of your character augmented. Johnson said of Burke that no person could come near him, even though the *rencontre* was as casual as the turning aside into a covered alley to escape a shower of rain, and the conversation limited to a single sentence from him, without receiving the impression that he was a great man. Usually the effect of distance on the angle of vision is reversed when we estimate the size of reputed great men. This is because their weak points betray them, and lessen the glamour of what is truly great in their character.

Hence the intellectual and moral force which a teacher possesses should be allowed to speak for itself. For nothing is more fatal to the impression which a man of good parts is fitted to produce than much talk, especially about himself. Hence he should be emphatically personal in the effect which his true weight of character produces on his pupils; but wholly impersonal so far as even thoughts about himself are concerned. He should not, at least in manner, be conscious of his own existence. He should personify his subject and through this appeal to the sympathy which it is adapted to awaken in the minds of his hearers. He must actually lose all thoughts of selfishness if he would appear to be free, since nothing betrays anyone so quickly as a consciousness of personal magnitude. So the true teacher should divest himself of all thoughts about his dignity and reputation; and the more he can do this the greater will be his share in the affections and respect of his charge. If he loves his work and lives to do good to those who seek his aid, this self-effacement will not be difficult, and his reward is sure. For the young are susceptible of strong affection. They soon recognize those who love and live for them. Even the babe in the cradle knows and will respond to the look of love which beams down upon its helplessness. Undoubtedly love is the chain that binds all moral natures together, and is an attraction which exerts its power through all intervening objects. If the teacher can wield this energy he can govern, rather the feeling governs for him. If he is secure in the affectionate respect of his charge, they will, in the main, govern themselves; or at most only require a word or a look. With such a power to back him he is always secure of his position; without it he has no proper place in the professor's chair. By force and harshness, by the cunning which native keenness whetted by experience can employ, he can rule. But it will be by the process

described by Tacitus, *solitudinem faciunt et pacem vocant*, of "making a solitude and calling it peace."

But little government in colleges is required. Few formal rules, no threats, no long talks about proper demeanor; emphatically, no scolding. For each student knows in advance how to conduct himself properly; or, if there be an occasional exception, he will be held in check by the others, provided the elements for good which have the ascendency in every class are not alienated by the folly of the teacher. With this force enlisted in his favor he will not be conscious of authority, or his pupils feel its weight.

Every wise instructor will remember always, and especially in the recitation-room, the character of his charge. The Greek described his differentive by his true name, παῖς, the player. He overflows with mischief, but not with malice. For he is too young to be malicious. He has not yet had enough experience in life to sour his heart. Good-natured frolic may be expected to run over, and is a safety-valve against more serious offences. With reference to this proneness to mischief the teacher must have eyes to see and yet not see; ears to hear and yet not hear. He should be fully aware of all that is doing, and yet have the wise discretion to notice only that which really requires notice in order to be corrected. He must in no case allow anything said or done to be construed as personal to himself. He must occupy a place entirely above the possibility of being insulted or angered; quite as much as the parent in relation to his child. There can be no insult and no recognition of the attempt, were it ever made. For if there be such recognition, and his temper get beyond control, the instructor's peace of mind and usefulness are at an end. If he is on the lookout for insults, he will see them. If he expects mischief directed at himself, his charge will not be so magnanimous as to disappoint him. Then the purpose of the recitation-room is forgotten. Instead of being the arena of courtesy and culture, where the elective play is constant between him who has something good to give and receptive souls who are eager to receive, where friendships are forming to be perfected in the school of Christ—instead of being the place to which we, in after-days, make a pilgrimage as to a holy shrine, and in memory hear again the eloquent voices now mute on earth—instead of all this, the recitation-room becomes a veritable bear-garden. There, perched on his tripod, sits a manikin, the mark for all missiles, from the paper-pellet to the barbed witticism. In helpless rage he squeaks his command for order, while self-respect vanishes before the feigned fright at his harmless threats. His energies are frittered away in vain attempts to command the peace, while the real object of instruction is dissipated by a confusion which makes the place hateful alike to both parties who are brought thither by constraint; and they

> Part without the least regret,
> Except that they have ever met.

While the vocation of professor may be made unspeakably happy to the holder, and second only to the pulpit in its power for good to the learner, yet nothing can be more wretched than it is when filled by one who has no adap-

tation for the calling. Men are born teachers, just as they are poets, generals, orators. Many are the called, few the chosen, as is the case with those of first-rate excellence in any department.

But it may be asked: Must there be no government at all in colleges? Can the student be depended upon throughout to obey and do his work aright? This is by no means claimed. Human nature is alike in its general features everywhere. The republic of letters is not an ideal state of perfection, not a real Utopia. But, if experience has ever made anything clear, it has the fact that the more we attempt to govern college students the more occasion will they give for interference, until the true relation between instructor and pupil, which should be that of closest friends, will be changed to that of direct antagonism—war *à l'outrance* and *sauve qui peut.* Thus it will come about that the purpose for which they were brought together will be lost sight of in the constant effort to separate them effectually. While there must be government, the most salutary is that unconsciously exercised by the place and the personal character of the teaching force. Most college mischief is really so trivial that it is cured more quickly and effectually by ignoring than by noticing. As it is seldom malicious, the punishment should not be severe, and, especially, not degrading. The professor should exclusively manage his own room, and not expect the President or combined Faculty to galvanize him into life. For if he shows inability to do this, and so shirks from what is exclusively his own duty, he at once proves to all concerned, especially his students, that another man is needed in his place. Moreover, he should govern the student inside his own room, and not make the futile effort to control him by ordering the offender out of his presence. For, if he cannot be controlled while under the eye of the instructor, surely he never can when there is a wall between them.

Punishment when inflicted should be speedy, decisive, and usually pass without any reason being given by the authorities, except to the subject of it and his proper guardians. The more secret it is, if really deserving, the greater effect will it have on other transgressors, who dread an equally secret blow, being conscious that they deserve it. The penalty should speak for itself, requiring no excuse, and deigning no explanation to the college public. There should be no espionage to get proof; no detectives; no undignified prowling by the instructors at night; no forcible entry of students' rooms, nor stretching testimony on the rack of cross-questioning. All information gotten by such methods is harmful to the pupil, and degrading to the teacher. No immunity should be promised to "State's evidence," except when this is proffered voluntarily, and then it should affect only the party who gives it. Combinations to resist authority are dangerous to a college only when they are feared. They should be acknowledged no further than as proof of premeditated offence, and, therefore, no one should be shielded because he was induced by numbers to engage in acts which he would not do by himself. Numbers can be no excuse, because each person must be judged by his individual responsibility which he carries into the combination, and, therefore, cannot lessen the punishment due to each participant.

While it is the object of college government to prevent, as far as possible,

offences calling for punishment, it is especially the case with such as look to a temporary or final removal of the student. For, whenever there is such an instance, unless it be for conduct so outrageous and maliciously wicked, as seldom occurs, the effect is to keep the whole institution in a ferment while it is under consideration, and for a long time afterward. The action of college authorities in dismissing students for any offences, except hazing, is always misjudged by the press, if it reaches this publicity. And it is difficult to keep such action private, for the ubiquitous reporter is abroad more than the schoolmaster. The case is then tried over in the daily papers, with such *res gestæ* as could not be recognized by the original parties at action, but with a foregone verdict in the student's favor. The friends of the culprit do not wish to understand the true merits of the case, and the public cannot. Meanwhile, the one specially affected and his college friends are interrupted in their work; and the loss which an offender suffers by a long suspension is generally disproportionate to the demerit of his transgression.

But there are offences for which severe punishment should be meted. Such is hazing in all its hateful and disgusting forms. There is no excuse or palliation, for it sins against the *esprit de corps* which is necessary to any corporate existence. Here the malevolent spirit and passions are rampant. The whole tenor is contrary to the temper which should reign among cultured men, and hence those who indulge in this cowardly and brutal pastime have no place among gentlemen. It is the unprovoked assault made by the strong and united against the weak and single-handed, against those who are strange, timid and usually less favored in resources and talents. Every college should dismiss, without fear of numbers, or favor toward friends, all who engage in this sport, kindred in its spirit with the cocking main and the dog fight. Judgment to the line and justice to the plumb-line, till this relic of barbarism is utterly rooted out. And this is a sort of discipline which the press, while generally unfair to college authorities when they punish, will fully sustain, and which, for that reason, is seldom distorted or misunderstood by either friends or foes.

Offences against college property should be met by pecuniary reparation. An institution of culture should no more think of dismissing one of its students for interfering with the chapel bell—a very stale trick—or breaking down a fence, or painting the buildings of any hue his fancy may suggest, than a parent should of turning his son out of doors for similar pranks. Pecuniary restitution will be made with a sense of justice, and the trick will rather redound to the ridicule of the perpetrator. But if punished beyond this, the offender becomes a martyr, and all his friends are alienated.

The real theory of government is the prevention of crime, and nowhere is this more necessary than in a community united by the common bonds of affection and interest. It may be needful sometimes to guard against pranks when the sole object is the injury of property. But this guarding should not be so much for the purpose of detecting the author as preventing the offence. To make the discovery of the offender the main object is absurd. So, those good souls who feel it their mission in life to act the detective, to wander around in disguise, even if they are, single-handed, a match for large numbers

of quick-witted and nimble young men—which is seldom the case—yet, on calm reflection, after the nocturnal sortie has been made, must feel almost as little in their own estimation as they are held by the students they have waylaid.

It is easy for an experienced professor to know which of his pupils is doing no good in his studies. There may be instances where a student does poorly and is misunderstood in one department. But the united experience of several instructors will not be at fault in judging his case. By intuition the governing body can surely determine who is wasting his time in idleness—the forerunner of mischief. It is kindness to the idler himself, to his parents, who may be struggling to maintain him at college, to the other students, to send him away after the fact of his idleness has been established, that the atmosphere of industry and energy be not vitiated by his presence. But he should be removed quietly, without disgrace; and this action will be so heartily approved by the worthy element among the students, that no commotion will be made, no class-spirit excited, for worthless members, and no wrong done the idler or his people. Such discipline is the healthy pruning of the tree. It leaves no wound on the trunk, and permits the other branches to grow without being cumbered.

Thus the whole aim of formal government should be to superinduce such a state of things that as little attention as possible be given to this department; in other words, to govern so as to need no government at all. This is the ideal; and an institution will approach perfection in this respect in proportion as it realizes this ideal. For all government is only preparatory to something better, which is, that every one be so disciplined that he can do the best work of which he is capable, without any interference, and no unproductive energy be expended.

III. (*c*) TEACHING, *ex-cathedra.*

The professor should never cease to be a student, either in spirit or work. He should never grow old in feeling, and so lose his sympathy with young people. He should, by fresh study of the best methods and newest sources of information touching his subject, be fully abreast with all that can be known in the present status of knowledge. When he leaves off study he should cease to try to teach. His wealth of information is necessary to give him strength for the delivery of struggling thought. The requisite knowledge is supposed to be in his own mind already, and it is his object to get it to pass through the digestive process of his pupil's intellect in order to become the pabulum of his spiritual nature. Hence the task is, not to drive the knowledge in with hammer and punch, but to bring it out by prudent questioning. The talent to ask exhaustive questions in clear, brief, striking speech is the criterion of ability. This was conspicuous in Trendelenburg, Arnold, Woolsey and all who ever did first-rate work in teaching. The questions should be so put as to aid and not embarrass. Some *petits maitres* use methods to entrap in order to make their pupils more wary, justifying this trickery by the theory that when men get out into the world they must be fully awake to all kinds of deception. But if pursued in teaching, it destroys that confidence between teacher and scholar, which is the groundwork of all

fruitful intercourse between them. For how will the pupil know when the query is genuine if it be sometimes employed to develop and enlighten, and at others to obscure and complicate it? The teacher should never try to deceive his pupils in anything. There should be the most perfect candor exercised on his part, and assumed by him from his pupils. As no man is infallible, the true teacher will not claim to be free from mistakes. Hence, if he does not know when asked a question, he will frankly say so; and if the pupil happens to be right in a controverted point, the teacher should unhesitatingly give him credit in the most clear and public way. Were he not actuated by a higher principle than mere expediency, this is the best course. For, an attempt to conceal his ignorance, and make his chair both the coward's and the fool's fort, is sure to prove disastrous to his reputation. For it will never do to presume on the ignorance of a class of bright young men. There will certainly be found some one sharp enough to prick the bubble of conceit.

In the class-room the professor must know no man after the flesh. He must have neither favorites nor objects of dislike. The sweet, gentle and courteous, or the crooked, cranky and boorish must be treated exactly alike when they do not offend against discipline. Hence the teacher must have such perfect command of his feelings as to be, to all outward appearances, entirely void of passion, even of consciousness, so far as his own personality is concerned. He should endeavor to know the character, not only of the class in its prevailing spirit, but of each individually. This personal asquaintance with each, even his peculiarities of temper, wishes, prior training, present difficulties and needs, is the foundation of his ability to deal successfully with his charge. Hence he should invite the fullest confidence both in public and in private. The time when the youth leaves the parental fireside is one of trial to the average student. The kindness to which he has been accustomed, the present lack of sympathetic companionship, the new and formal environment, cause many a pang to hearts which are not weak, but need sympathy, and which will show courage for any struggle as soon as they have oriented themselves in their new world. Kindness shown at this period is a rich investment, yielding usurious interest to both teacher and pupil.

The professor should not assume a lofty or magisterial air. He should let his dignity take care of itself unless there be so little that it needs coddling. In this case it is necessary to give his whole attention to it, and even with this care it is apt to languish. The grand air invites caricature and ridicule from those who can read the subject through, reading even between the lines.

III. Lastly, all instruction and discipline should be pursued with a view to make men better all round, so that they can do their most efficient work. Hence the discipline in knowledge must not be sundered from the culture in religion. By this is not meant that the tenets of any special sect shall be taught. This is not the work of a school of any grade save the seminary for the training of the ministry. The day of church schools and colleges has well-nigh passed. Even in those countries where there is a religious establishment the tendency toward liberalism is so strong that subscription to Articles of Creed has become almost obsolete. But the religion of the Bible, being the foundation of all true culture and progress, must be taught wherever the

young are gathered for instruction. For it underlies all that is worth retaining in civilization, and measures the departure from barbarism and savagery. Even the freethinker, who affects to despise revealed truth, is enabled to occupy a vantage ground for attack by reason of the strength he has derived from Christian institutions. This may be seen clearly if we separate from his theories whatever he has stolen directly or indirectly from divine revelation. The residuum of all these boasted systems, which can be justly attributed to unbelief, made up as it is of negatives and doubts, is such a miserable caricature of morality that the most shame-faced atheist would deny its paternity. Many institutions have been founded by those who rejected the Bible; and the animus which actuated them was shown in the strict laws for the exclusion of all clergymen and religious exercises. But experience soon showed that no college can be conducted on such a basis. Suitable officers for instruction and government could not be found among professed infidels; and if such were obtained they would attract no patronage. For no parents, however irreligious themselves, are willing to intrust their children to those who have not the stability growing out of religious convictions. Piety cannot be separated from culture without the destruction of all that makes this of any value.

There is a special necessity for religious instruction in colleges, for the pupils are at the age when the spirit of inquiry and restiveness under received opinions are most energetic. Few persons have not experienced the temptations to unbelief at this period and felt the need of help to resist that tendency. Hence it is held that instruction in science and literature, in all that qualifies for duty in this life, should be pursued with reference to the eternal existence of which the present forms the disciplinary stage. This does not require that religion should be taught formally from the professional chair. But no institution should be without daily worship, in which the common needs of dependent creatures are recognized and the Source of Supply reverentially worshipped. The relations of the creature to the Creator, of the sinner to the Redeemer, are the common doctrines of all Christians. They contain nothing that is sectarian, and can offend none who have a decent regard for morality. They constitute a common ground on which all can meet as children of one Father, who unite together on earth engaged in preparation for an unending service together in a higher existence. Such exercises of worship should be placed on the same footing as other college duties. If attendance at lectures and recitations is voluntary, then let there be the same liberty for the religious services. But, if the former be compulsory, then also the latter.

It is not, however, in public worship, exclusively or chiefly, that the religious culture of the student is to be advanced. It being the matter of first importance should be kept in view everywhere, not formally and systematically, but by tacit recognition as the basis of all that is worth possessing. This does not require, to use the illustration of the essayist, that "men should talk through their noses to prove their sanctity," or that in recitations on philology or pure mathematics, the professor should interlard his explanations "with exhortations to serve the Lord." Still he can always make it apparent to the most careless what spirit actuates him. He should be a wit-

ness for Christ by his life, and the more of his Master's temper he possesses, the less occasion will there be to proclaim it at the corners of the streets. Like the saintly Alexander, who, when impertinently asked by the noisy revivalist, "if he had any religion," replied, "None to speak of." But he has a religion to live, and thereby to testify before all men, but especially those whom he is commissioned to instruct; and whenever this testimony can be properly introduced, he is bound to make it of the highest importance. The times and places must be seized according to his own judgment, as no formal rules can be given. Here, as elsewhere, wisdom is justified of her children. He that makes it his first duty to do good to his pupils, who feels that it is of more importance that they should love God than be wise in this world, will find that suitable occasions offer. His attitude will always be apparent by the manner he treats any allusion to Divine things found in science or literature. There is no subject touching human interests that can be entirely severed from our relations to our Maker and Ruler. So in every allusion in any department of learning, whether it be hostile or friendly, occasions can be found for a word of approval or reproof.

But it is in the more private relations with his pupils that the teacher has his greatest opportunity to say a word for his Master. Herein the clear insight which enables him to grasp individual character, and to adapt his instructions to the capacity and condition of his pupil, is of the greatest value. For a word fitly spoken by one whose life is a voucher for its sincerity is a nail driven in a sure place.

In conclusion, the pupil will be disciplined largely by the spirit of the place, which is made up of all the factors which have wrought in the past, combined and strengthened by the living examples of those equally devoted. The teacher will do his work, not as a burdensome task, but as an ever new joy as successive classes keep him always young in spirit. He will think it his highest privilege on earth to come into close personal contact with brilliant, loving youth, who do him honor by seeking his aid. By appealing to the better instincts of each pupil, by confiding in his truthfulness, by convincing him that the instructor's life "is bound up in the life of the lad," will be noticed the perfection of discipline, where, with no divided interests, these *commilitones* find, to their mutual joy, that they are sitting together at the feet of the Great Teacher, and daily growing into His likeness.

Both of the above papers were then discussed by President Patton, President Hughes, President Low, and Warden Fairbairn.

It was moved that the Executive Committee, in arranging for the next annual meeting, endeavor to provide a longer time for discussion of the papers presented. Carried.

President Low moved that the cordial and hearty thanks of the Association be extended to the President and officers of Princeton College for their generous entertainment of the Association. Carried.

President Patton responded, expressing the pleasure expressed by himself and his colleagues at the meeting of the Association at Princeton.

Mr. Dewey invited the members of the Association to attend the University Convocation at Albany, in July, 1891. On motion, the Association adjourned.

NICHOLAS MURRAY BUTLER,
Secretary pro tem.

REPORT OF THE EXECUTIVE COMMITTEE

OF

The College Association of the Middle States and Maryland.

THE Committee met at Murray Hall, Princeton, Friday, November 28, 1890, a quorum being present.

The Chairman announced the withdrawal from the Association of Westminster College, which was accepted.

On motion, the following Colleges were admitted to the Association: Bryn Mawr College, Washington College, Woodstock College, Catholic University of America, Columbian College, The National Deaf-Mute College, The University of the State of New York, Colgate University, and St. Stephen's College.

On motion, it was resolved to instruct the President to limit the remarks of each referee and co-referee to twenty minutes; those of persons appointed to prepare papers to fifteen minutes, and those of persons participating in general discussions to five minutes.

On motion, the Committee adjourned to meet the next morning at 8.30 A.M.

SECOND MEETING.

The second meeting assembled at 8.30, November 29, 1890.

The following report of the Treasurer was presented, accompanied by the vouchers, and, on motion, it was referred to a committee consisting of President Adams and Dr. Magill, to audit and report concerning the Association. On motion of President Patton, it was resolved that the President be instructed to pay the expenses incurred by members of the Executive Committee when attending special meetings. The Treasurer reported the names of three colleges, members of the Association, which had not paid their annual assessment for 1889 and 1890, and explained the reasons for the same. No action was taken.

On motion, it was resolved that the next meeting of the Association be held at Cornell University, Ithaca, New York, on the day following Thanksgiving Day, in 1891.

On motion of President Patton, the incoming Executive Committee was instructed to take into consideration the changing the name of the Association.

Dr. Magill presented the following as a proposed Section 3, to be added to Article II. of the Constitution: "Article II., Section 3. Any College belonging to this Association not paying its annual dues for the period of two years, may be dropped from the roll at any regular meeting, by a majority vote of the Colleges represented at such meeting." On motion, this amendment was referred to the incoming Executive Committee to consider and report.

On motion, the Committee adjourned.

NICHOLAS MURRAY BUTLER,
Secretary pro tem.

REPORT OF PROF. J. B. KIEFFER, TREASURER.

To the College Association of the Middle States and Maryland.

GENTLEMEN: I beg to submit my report of the condition of the Treasury of the Association for the year 1889–1890, as contained in the following abstract and the accompanying detailed statement:

RECEIPTS.

Balance in the Treasury, Nov. 28, 1889	$38 08
Assessments from Twenty-one Colleges	378 00
Total Receipts	$416 08

DISBURSEMENTS.

For Publication of Proceedings, Programmes, etc.	$363 89
For Expenses of the Executive Committee	9 86
For Expressage, Circulars and Postage	14 40
Balance in Treasurer's hands, Nov. 28, 1890	27 93
	$416 08

Respectfully submitted,
JOHN B. KIEFFER, *Treasurer.*

Lancaster, Pa., Nov. 27, 1890.

The above report has been examined and compared with the vouchers and found correct.

C. K. ADAMS,
EDW. H. MAGILL, } *Auditing Committee.*

CONSTITUTION

OF THE

COLLEGE ASSOCIATION

OF

THE MIDDLE STATES AND MARYLAND.

ARTICLE I.

NAME AND OBJECT.

SECTION 1. The name of this Association shall be THE COLLEGE ASSOCIATION OF THE MIDDLE STATES AND MARYLAND.

SEC. 2. The object of this Association shall be to consider the qualifications for candidates for admission to the Colleges and the methods of admission; the character of the Preparatory Schools; the courses of study to be pursued in the Colleges, including their order, number, etc.; the relative number of required and elective studies in the various classes; the kind and character of degrees conferred; methods of College organization, government, etc.; the relation of the Colleges to the State and to the general educational systems of the State and country; and any and all other questions affecting the welfare of the Colleges, or calculated to secure their proper advancement.

ARTICLE II.

MEMBERSHIP AND VOTING.

SECTION 1. Any College in the Middle States and Maryland may be received into membership in this Association upon approval of the Executive Committee.

SEC. 2. In transacting the ordinary business of the meetings of the Association all delegates present shall be entitled to vote, but on all questions requiring a decision *by ballot* each College represented shall have but one vote.

ARTICLE III.

OFFICERS.

The officers of the Association shall be a President, one Vice-President from each State represented in the Association, a Recording Secretary, Corresponding Secretary, Treasurer, and an Executive Committee of four members, besides the officers above mentioned, who shall be, *ex officiis*, members of the Executive Committee. These officers shall be chosen at the annual meeting, by ballot, and shall hold office for one year, or until their successors have been elected. The Executive Committee shall elect its own chairman.

ARTICLE IV.

DUTIES OF OFFICERS.

SECTION 1. The President, or in his absence the Vice-President, shall preside at all meetings of the Association, and sign all orders upon the Treasurer.

SEC. 2. The Recording Secretary shall keep a record of all business transacted by the Association. The Corresponding Secretary shall conduct the necessary correspondence.

SEC. 3. The Treasurer shall receive and hold all moneys of the Association, and pay out the same upon a written order of the President.

SEC. 4. The Executive Committee shall prepare business for the Association, fix time and place of annual meeting, call special meetings, and act for the Association in its recess; but the acts of this Committee shall always be subject to the approval of the Association.

ARTICLE V.

MEETINGS.

There shall be one annual meeting of the Association, for the election of officers and the transaction of other business. Unless determined by the Association, the date and place of holding this meeting shall be decided by the Executive Committee, which Committee shall also have power to call special meetings of the Association.

ARTICLE VI.

EXPENSES.

The expenses of holding the meetings of the Association, conducting the correspondence, printing, etc., shall be equally assessed upon the Colleges represented in the Association.

ARTICLE VII.

POWER OF THE ASSOCIATION.

Decisions by the Association, of questions not pertaining to its organization, shall always be considered *advisory*, and not *mandatory*, each College preserving its own individuality and liberty of action upon all other subjects considered.

ARTICLE VIII.

RELIGIOUS TESTS.

No religious tests shall be imposed in deciding upon membership or other privileges in this Association.

ARTICLE IX.

A QUORUM.

Representatives from one-third of the Colleges belonging to the Association shall constitute a quorum for the transaction of business.

ARTICLE X.

CHANGE OF THE CONSTITUTION.

This Constitution may be altered or amended at any regular meeting by a vote, by ballot, of two-thirds of the Colleges represented at said meeting.